

STARS

University of Central Florida
STARS

Electronic Theses and Dissertations, 2004-2019

2004

A Case Study of the Libraries In the Vanguard Learning Colleges

Linda G. Swaine
University of Central Florida



Part of the [Educational Assessment, Evaluation, and Research Commons](#), and the [Library and Information Science Commons](#)

Find similar works at: <https://stars.library.ucf.edu/etd>

University of Central Florida Libraries <http://library.ucf.edu>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations, 2004-2019 by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

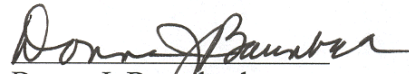
Swaine, Linda G., "A Case Study of the Libraries In the Vanguard Learning Colleges" (2004). *Electronic Theses and Dissertations, 2004-2019*. 6117.
<https://stars.library.ucf.edu/etd/6117>

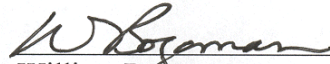


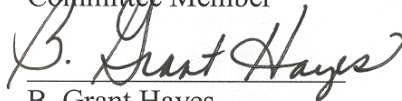
UNIVERSITY OF CENTRAL FLORIDA
DISSERTATION APPROVAL

The members of the Committee approve the dissertation entitled *A Case Study of the Libraries in the Vanguard Learning Colleges* of Linda G. Swaine, defended March 29, 2004.

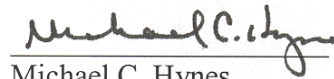

Douglas Magann, Chair

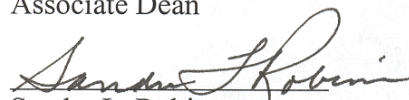

Donna J. Baumbach
Committee Member

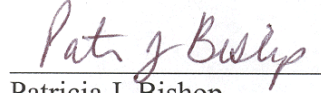

William Bozeman
Committee Member


B. Grant Hayes
Committee Member

It is recommended that this dissertation be used in partial fulfillment of the requirements for the degree of Doctor of Education from the Department of Educational Research, Technology and Leadership in the College of Education.


Michael C. Hynes
Associate Dean


Sandra L. Robinson
Dean


Patricia J. Bishop
Vice Provost and Dean of Graduate Studies

The committee, the college, and the University of Central Florida are not liable for any use of the materials presented in this study.

A CASE STUDY OF THE LIBRARIES IN THE
VANGUARD LEARNING COLLEGES

by

LINDA G. SWAINE
B.A. Florida State University, 1969
M.S. Florida State University, 1971
Specialist Degree Florida State University, 2001

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Research, Technology and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

Spring Term
2004

Major Professor: Dr. Douglas Magann

© 2004 Linda G. Swaine

ABSTRACT

This study was conducted to determine the characteristics of a learning-centered library from the perspective of the libraries in the 12 Vanguard Learning Colleges which were participants in the Learning College Project sponsored by the League for Innovation in the Community College. The 12 Vanguard Learning Colleges were: Cascadia Community College (WA), Community College of Baltimore County (MD), Community College of Denver (CO), Humber College, (Ontario), Kirkwood Community College (IA), Lane Community College, OR), Madison Area Technical College (WI), Moraine Valley Community College (IL), Palomar College (CA), Richland College (TX), Sinclair Community College (OH), and Valencia Community College (FL).

Furthermore, the researcher was interested in discovering the extent to which the learning-centered concept had been implemented in these libraries as it related to the objectives of the Learning College Project and to chronicle the journeys of the libraries to become more learning-centered.

The case study methodology was selected as the most appropriate method for collecting data from the libraries. The researcher interviewed the library administrators or their designees using a semi-structured telephone interview format. The interview questions were open-ended in nature and were developed based on the objectives of the Learning College Project under the guidance of a panel of experts from the fields of information studies and qualitative research.

An analysis of the data derived from the telephone interviews and archival documents was analyzed using qualitative analysis strategies. The researcher sought to identify recurring patterns.

Findings indicated that a learning-centered library: (a) supports the teaching and learning processes of the college, (b) empowers library staff to be facilitators of learning, (c) conducts strategic planning and assessment, (d) markets its services and resources to its learning community, (e) has facilities that are welcoming and conducive to the learning needs of its users, and (f) uses benchmarking with peer libraries and other organizations to improve its resources and services.

When the library administrators or their designees rated the level of learning-centeredness attained by their libraries on a scale of one to ten with one being lowest and ten being highest, the most frequently reported level was 7 and the mean was 6.75. Findings on the implementation of the objectives of the Learning College Project suggested that while the libraries had made tremendous strides in this endeavor, their journeys were not yet completed.

This dissertation is dedicated to my husband, Richard, who encouraged me to pursue my dream; to my children—Britt, Nick, and Melissa, and my daughter-in-law, Lisa, for their loving encouragement and support; to my grandchildren who thought it was great that Grandma was still going to school; and to Sally, my best friend, for always being there whenever I had doubts about fulfilling my dream.

ACKNOWLEDGMENTS

The completion of this dissertation would not have been possible without the constant support and understanding of my family, friends, and the LRC staff at the Osceola Campus of Valencia Community College.

I would particularly like to thank Dr. Mary Ann Lynn for her patience and understanding throughout the developmental stages of this dissertation. Her well-deserved retirement prevented her from seeing this research project to completion. My hope is that this dissertation will live up to her expectations.

I would like to thank Dr. Doug Magann who assumed the role as my advisor when Dr. Lynn retired. His high expectations inspired me to do my best to write a dissertation that will be useful to library administrators who are seeking ways to create more learning-centered libraries.

I would like to thank the other members of my committee, Drs. Donna Baumbach, William Bozeman, and B. Grant Hayes for their insight and patience. I appreciate the support and guidance they have provided throughout this process.

A special thank you to Dr. Silvia Zapico, the Provost of the Osceola Campus at Valencia Community College, who always had time to listen as I struggled with the challenges of researching and writing this dissertation.

A special thank you to Dr. Sanford C. Shugart, President of Valencia Community College, for being an ardent advocate of learning-centered libraries and providing support and encouragement to my efforts in researching and writing this dissertation.

These acknowledgements would not be complete without thanking the person who encouraged me to begin this personal quest for knowledge—Dr. Douglas Cross, Dean of Libraries at Walters State Community College in Morristown, Tennessee, and my former boss. His prophetic words still echo in my ears—“You can do it, Kid!”

A special thank you to Cathleen Armstead who guided me through the process of analyzing all those hours of interview transcripts to look for patterns in order to tell the stories of the libraries in the Vanguard Learning Colleges. A special thank you to the members of the Panel of Experts who guided me through the development of the interview questions.

And finally, a special thank you to the administrators of the libraries in the Vanguard Learning Colleges—Cynthia Fugate, Cascadia Community College/University of Washington at Bothell; Mary Landry, Community College of Baltimore County; David Gleim, Auraria Library/Community College of Denver; Lynne Bentley, Humber College; Jerrie Bourgo and Arron Wings, Kirkwood Community College; Nadine Williams, Lane Community College; Kalleen Mortensen, Madison Area Technical College; Sylvia Jenkins, Moraine Valley Community College; George Mozes, Palomar College; Virginia Peters and Sonya Kirkwood, Sinclair Community College; and Kerry Sullivan, Valencia Community College.

TABLE OF CONTENTS

LIST OF TABLES	xii
CHAPTER 1 – THE PROBLEM AND ITS DESIGN COMPONENTS	1
Introduction.....	1
Statement of the Problem.....	3
Clarification of the Problem Statement.....	4
Definitions.....	4
Delimitations and Limitations.....	8
Assumptions.....	9
Significance of the Study	9
Conceptual Framework.....	10
The Change Process.....	10
The Learning College and the Change Process	12
Learning Theories	16
Libraries and Learning-Centeredness	19
Research Questions.....	21
Methodology	22
Population	22
Instrumentation and Other Sources of Data.....	22
Data Collection	23
Data Analysis.....	24
Organization of the Study	25
CHAPTER 2 – REVIEW OF LITERATURE	26
Introduction.....	26
The Role of College Libraries in Student Learning.....	27
History of College Libraries in America	27
Accreditation and Standards for College Libraries.....	42
Comparison of Regional Accreditation Standards That Affect College Libraries.....	44
Key Components of a Library Program.....	48
Library Instruction	48
Information Literacy	55
Collaborative Relationships.....	60
Outcomes Assessment	65
Services.....	66

Staffing.....	67
User-Friendly Library: Facilities and Signage.....	68
Kuh and Gonyea Study on Student Experiences with Academic Libraries.....	72
The Learning-Centered Movement in Higher Education	75
Historical Context	75
The Learning College	77
The Learning College Project.....	85
Summary	89
 CHAPTER 3 – METHODOLOGY.....	 90
Introduction.....	90
Statement of the Problem.....	90
Research Design and Rationale	91
Instrument Development.....	92
Research Questions.....	93
Population	94
Data Collection	94
Data Analysis.....	95
Summary	97
 CHAPTER 4 – ANALYSIS OF THE DATA.....	 99
Introduction.....	99
The Libraries in the Vanguard Learning Colleges.....	102
Cascadia Community College.....	102
Community College of Baltimore County	108
Community College of Denver	113
Humber College	117
Kirkwood Community College.....	123
Lane Community College	130
Madison Area Technical College.....	136
Moraine Valley Community College.....	141
Palomar College.....	145
Richland College.....	152
Sinclair Community College.....	157
Valencia Community College.....	162
Summary	170
 CHAPTER 5 - SUMMARY, DISCUSSIONS, IMPLICATIONS, AND RECOMMENDATIONS	 171
Introduction.....	171
Summary and Discussion of the Findings	171

Research Question 1	171
Research Question 2	190
Research Question 3	199
Research Question 4	201
Research Question 5	202
Implications for Libraries	205
Beginning the Journey	205
Sharing Best Practices.....	206
Assessment Practices	207
Recommendations for Further Study	207
APPENDIX A: COVER LETTER	209
APPENDIX B: FOLLOW UP EMAIL MESSAGE	212
APPENDIX C: INTERVIEW QUESTIONS.....	214
APPENDIX D: PANEL OF EXPERTS AND TIMELINE FOR DEVELOPMENT OF TELEPHONE INTERVIEW QUESTIONS.....	217
APPENDIX E: IRB HUMAN SUBJECTS PERMISSION LETTER.....	219
APPENDIX F: RESEARCH QUESTION 1 DATA	221
APPENDIX G: RESEARCH QUESTION 2 DATA.....	232
APPENDIX H: RESEARCH QUESTION 3 DATA.....	235
APPENDIX I: RESEARCH QUESTION 4 DATA	237
APPENDIX J: LIBRARY STATISTICS	239
APPENDIX K: CONTACT INFORMATION	241
LIST OF REFERENCES	243

LIST OF TABLES

Table 1: Statistics of the Level of Learning-Centeredness Attained by the Libraries in the Vanguard Learning College	190
Table 2: Frequency Distribution of the Level of Learning-Centeredness Attained by the Libraries in the Vanguard Learning Colleges	191

CHAPTER 1

THE PROBLEM AND ITS DESIGN COMPONENTS

Introduction

Significant change has been occurring in higher education. Societal factors have driven this change—students are becoming more diverse and increasingly underprepared to excel in college-level courses; technology is pervasive in all aspects of society; and an increased demand for reform in higher education has caused colleges to rethink the way they prepare students to be successful in the 21st century (“Changes in Higher Education,” 2003).

The significant change in higher education has manifested itself in a paradigm shift from focusing on teaching to focusing on learning (Barr & Tagg, 1995). Barr and Tagg reported that the learning paradigm puts an end to “lecture’s privileged position, honoring in its place whatever approaches serve best to prompt learning of particular knowledge by particular students” (§ 5) and changed the perception of colleges from one that “exists to provide instruction” to one that “exists to produce learning” (§ 1).

Community colleges provided the ideal laboratory for experimenting with the learning paradigm because, historically speaking, community colleges have exhibited a “commitment, energy, and ‘can do’ spirit that [was] characterized [by] the building of campuses” in the growth decades of the 1960s and 1970s (Cross, 1999, p. 5). Many community college leaders were no longer satisfied with the mediocrity of learning that had settled on their campuses following the frenetic building pace of the previous

decades and were primed to experiment with learning by creating learning communities to enable their students to make “connections with the ideas and challenges of their peers” (Cross, p. 6).

Influenced by an article written by Barr and Tagg on the learning paradigm and the apparent need for reform in the community colleges, O’Banion began to write articles on the limitations of higher education—“time-bound, place-bound, bureaucracy-bound, and role-bound” (Flynn, 2003, ¶5). In his writings, O’Banion identified “the basic principles that undergird the concept of the learning college, and articulated the primary issues and challenges colleges would encounter when they decided to become more learning-centered” (Flynn, ¶ 5). O’Banion’s thoughts about the learning paradigm converged in a publication entitled *A Learning College for the 21st Century* (1997b) which was, essentially, a guide to help community colleges who had made the commitment to become a learning-centered institution.

The League for Innovation in the Community College, an international consortium of leading community colleges in the United States and Canada dedicated to experimentation and innovation (“About the League,” 2003), created a project that would implement the learning paradigm in a select number of their member colleges. In 1999, the League issued an invitation to their member colleges to apply for the Learning College Project.

During the same time period of tremendous change, academic libraries were experiencing their own paradigm shift from being a storehouse of knowledge to one in

which information transcends the library's physical facilities and collections (Rice-Lively, 1997). Concerned that libraries would no longer be a necessary partner in the learning process in the Information Age, a group of 80 academic librarians collaboratively developed the Keystone Principles. The Association for Colleges and Research Libraries endorsed the Keystone Principles, which are, as follows:

1. Scholarly and government information is a public good and must be available free of marketing bias, commercial motives, and cost to the individual user.
2. Libraries are responsible for creating innovative information systems for the dissemination and preservation of information and new knowledge regardless of format.
3. The academic library is the intellectual commons for the community where people and interact in both the real and virtual environments to expand learning and facilitate the creation of new knowledge. (Stoffle, Allen, & Fore, 2000, ¶ 8).

Statement of the Problem

The problem of this study was: (a) to determine the characteristics of a learning-centered library from the perspective of the libraries in the 12 Vanguard Learning Colleges, (b) to determine the extent to which the learning-centered concept had been implemented in the libraries of the 12 Vanguard Learning Colleges as it related to the objectives of the Learning College Project, and (c) to chronicle the journeys of the libraries to become more learning-centered.

Clarification of the Problem Statement

Definitions

For the purposes of this study, the following terms were defined:

Learning community—According to O’Banion, a learning community is one in which “curricular intervention [is] designed to enhance collaboration and expand learning. . . [and which] purposefully restructures the curriculum to link together courses or course work so that students find greater coherence in what they are learning, as well as increased intellectual interaction with faculty and students (1996, ¶ 4).”

Learning organization—Senge defined a learning organization as one in which “people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (1990, p. 3). O’Banion (1996, ¶ 9) adds: “In some ways, a learning organization is designed for the staff of the institution, while a learning-centered institution is designed for the students.”

Learning College—In his writings, O’Banion utilized the term *learning college* because it is “much more useful in describing the comprehensive nature of a community college committed to placing learning first than are the terms ‘learning communities’ and ‘learning organizations.’ The learning college places learning first and provides educational experiences for learners any way, any place, any time” (O’Banion, 1996, ¶ 11).

Learning-centered—The term refers to creating "substantive change in individual learners by providing multiple options for learning, enabling students to take responsibility for their own choices, and basing its staffing on student needs" (Wilson, 2002, p. 16).

Learner-centered—O'Banion (1999b) advocated that this term is synonymous with client centered, student centered, and customer centered. In essence it means that "institutions and their employees attempt to focus on the special needs of the individuals they exist to serve through their policies, programs, and practices" (§ 6). O'Banion indicated that the inclusion of the word "learner" with "centered" added value to the term because it suggests the reason for the relationship between the institution and the learner.

Paradigm—The term refers to a standard, a model or pattern. In describing thinking, it is often called a mindset, "a mental habit of treating ideas and things in a certain or comfortable way" (Faas, 1998). Thomas Kuhn expounded on the definition by describing a paradigm as "a rule or regulation that establishes boundaries and shows us how to be successful within those boundaries" (Faas).

Paradigm shift—This occurs when "one consciously moves from one mindset to another" (Faas, 1998).

Library/Learning Resources Center—According to the Academic Library Survey instructions from the National Center for Education Statistics (2002, § 1), a library is "an entity that provides all of the following: (a) an organized collection of printed or other materials or a combination thereof; (b) a staff trained to provide and interpret such

materials as required to meet the informational, cultural, recreational, or educational needs of clientele; (c) an established schedule in which services of the staff are available to clientele; and (d) the physical facilities necessary to support such a collection, staff, and schedule. This [definition] includes libraries that are part of learning resource centers.”

Organizational culture—Owens (2001, p. 401) defined organizational culture as: “Those enduring traditions, values, and basic assumptions shared by people in an organization over time that give meaning to the work of the organization and establish the behavioral norms for people in the organization.”

Information technology—According to *Newton’s Telecom Dictionary*, information technology “means all the equipment, processes, procedures, and systems used to provide and support information systems (computerized and manual) within an organization and those reaching out to consumers and suppliers” (2001, p. 378).

Information literacy—The Middle State Commission on Higher Education defined information literacy as an “intellectual framework for identifying, finding, understanding, evaluating and using information” (2002, ¶ 4).

Benchmarking—McClenney (2003b, ¶ 2) indicated that benchmarking is “generally defined as a process for identifying, understanding, and adapting outside practices from other organizations in order to help one’s own organization improve its performance.”

Standards—Association of College and Research Libraries (ACRL) defined standards as “policies which describe shared values and principles of performance for a library serving a Carnegie-classified institution” (ACRL Task Force on Academic Library Outcomes Assessment, 1998, ¶ 19). A document must adhere to the following guidelines in order to be considered a standard; the document must:

1. Present goals for programs, services, and staffing toward which the profession aspires.
2. Serve as a rule or model for quantity, quality, extent, or level of suitability.
3. Support representations that are qualitative and/or quantitative both of which are in the process of continuing review.
4. Act as a criterion for decision and actions in the academic community, confirming the planning and administration of library service with regard to value, quality, and suitability.
5. Include statements expressed in relative terms, relating performance to norms derived from a reference population (¶ 19).

Inputs—This term is used in library standards to identify “the raw materials of a library program—the money, space, collection, equipment, and staff out of which a program can arise” (ACRL College and Research Libraries Standards Task Force, 2003, p. 329) and can be used for benchmarking with other libraries.

Outputs—The ACRL College and Research Libraries Standards Task Force stated: “outputs serve to quantify the work done, i.e., number of books circulated, number of reference questions answered” (2003, p. 329) and can be used for benchmarking with other libraries.

Outcomes—The ACRL College and Research Libraries Standards Task Force stated: “outcomes are the ways in which library users are changed as a result of their contact with the library’s resources and programs” (2003, p. 329).

Best practice—McClenney (2003a, ¶ 17) indicated that best practice “should refer to educational practices for which there exists compelling evidence that they work in promoting student learning and persistence.”

Library administrators—This term refers to persons who manage or supervise libraries. Titles of the library administrators include: dean, director, coordinator, and manager.

Delimitations and Limitations

1. This study was delimited to the libraries in the 12 colleges selected by the League for Innovation in the Community College to participate in the Learning College Project as Vanguard Learning Colleges.

2. The case study approach represented only part of a whole and can lead to incorrect conclusions. Merriam noted that “Further limitations involve the issues of reliability, validity, and generalizability” (1990, p. 34).

Assumptions

The following assumptions were important to this study:

1. It was assumed that the library administrators responding to the interview questions would have accurate and current information concerning the implementation of the learning-centered concept into their libraries.
2. It was assumed that the library administrators would respond candidly and to the best of their abilities.
3. It was assumed that there would be commonalities and differences in the methods the library administrators used to implement the learning-centered concept into their libraries.

Significance of the Study

The purpose of the Learning College Project was to “assist community colleges in the United States and Canada to become more learning-centered by creating a network of 12 Vanguard Learning Colleges strongly committed to the Learning College concept, whose efforts can serve as a basis for model programs and best practices” (“The Learning College Project: Vanguard Colleges”, 2003, p. 1). In a personal communication, Terry O’Banion (May 20, 2002), President Emeritus of the League for Innovation in the Community College, stated: “Every time I speak at a college there is a question about what a learning-centered library would look like, so I think you have selected an important topic.” Library administrators in colleges who embark upon the journey to

become a learning college should be able to use the information in this case study to help guide their efforts in implementing the learning-centered concept in their libraries.

Conceptual Framework

The case study of the journeys of the libraries in the Vanguard Learning Colleges will be framed by change theory, learning theories underpinning the learning college concept, and the elements that comprise learning-centeredness in a library.

The Change Process

In *Organizational Behavior in Education*, Owens (2001) defined the change process in an organization as:

The life-cycle theory of organizational change, which views change as an endless process in the life of an organization, is the most widely acclaimed theoretical model. It is a three-stage model that starts with (1) unfreezing existing practices and behavior, followed by (2) the development of new practices and behaviors, then (3) institutionalizing and standardizing the newly developed practices and behaviors. (p. 399)

Cummings (1980) reported a similar description of the change process; his model for the change process identified four stages (p. 181): (a) entry and clarification, (b) diagnosis and feedback, (c) planning and intervention, and (d) evaluation and follow-up.

Guskin (1996) discussed the components of an effective change process as applied to restructuring a college or university. The components are: (a) any restructuring effort will require the development of a working consensus on the urgent need to

restructure; (b) the restructuring effort requires a working consensus around a vision of the institution's future; (c) the leadership of the college should seek employees who are supportive of the change effort and work with them; and (d) restructuring is implemented in phases because these revolutionary changes require time to evolve (p. 34).

Bolman and Deal included the following categories of issue for organizational change (1997, p.339): (a) without support, training, and chances to participate in the change process, people become a powerful anchor, making forward motion almost impossible; (b) confusion and uncertainty are created by disruption of existing roles and working relationships which requires a revision and realignment of structural patterns; (c) arenas must be created where issues can be negotiated and the political map realigned to minimize conflict between those people who embrace the new direction and those that do not; and (d) transition rituals and celebrations of the future allow people to let go of past organizational practices and behaviors and embrace new ones.

Concerning sustained change and organizations, Dormant (1997) stated: "Without . . . long-term visions and values, all organizational changes--whether efforts at quality and productivity or experiments with collaborative work modes--may be just Band Aids for organizational, economic, and social problems that require quite a different magnitude and kind of solution" (pp. 432 - 433).

The Learning College and the Change Process

As with many other efforts at education reform, the roots of the learning-centered movement were influenced by society's reaction to the publication of *A Nation at Risk* in 1983. In the early 1990's, colleges began to be concerned about the pressure to change from external forces. Because of the pressure exerted from external forces, colleges were ready to engage in the first level of the change process identified by Owens (2001) in which all practices and procedures are minutely examined to determine ways in which these practices and procedures could become more learning-centered.

The Pew Roundtables were utilized nationally throughout the college communities in the mid 1990s to provide "open dialogue between key players" (Guskin, p. 28) in this collaborative exploration of change. The American Council on Education and the Kellogg Foundation also funded roundtables for over 27 colleges and universities, four of which were community colleges with the focus on "what it means to be a learning-centered college and on recommendations for change" (Proposal, p. 2). In addition, new visions and mission statements for the institutions emerged from these roundtables.

The first national conference on this paradigm shift was held in San Diego in 1997; two distinct goals emerged from this conference: (a) to place learning first in every policy, program, and practice in higher education, and (b) to overhaul the traditional architecture of education" (O'Banion, 1999a, p. 2).

In January 2000, The League for Innovation in the Community College received grant funding for the Learning College Project, a project designed to provide opportunities for intercollegial collaboration to support community colleges in their commitment to learning-centered education (“The Learning College Project,” 2003). Of the 94 applications received, 12 colleges were selected to participate:

- Cascadia Community College (WA)
- Community College of Baltimore County (MD)
- Community College of Denver (CO)
- Humber College (Ontario)
- Kirkwood Community College (IA)
- Lane Community College (OR)
- Madison Area Technical College (WI)
- Moraine Valley Community College (IL)
- Palomar College (CA)
- Richland College (TX)
- Sinclair Community College (OH)
- Valencia Community College (FL) (“The Learning College Project: Vanguard Colleges,” ¶ 2).

In the institutions engaged in the Learning College Project, action teams were created to examine the core processes of the universities and colleges and to recommend changes that would make them more consistent with the focus on becoming more learning-centered (“Proposal,” p. 4). Periodically, feedback on the work of the action teams was provided to all interested faculty and staff via a forum format. The action teams received input from the participants that was sent back to the action teams for further discussion.

The second phase of the journey in the Learning College Project involved moving the institutions from talk to action. In this phase, substantive changes occurred in

administrative support of the learning process and in the development of core processes. This phase aligns with Owens's second stage of the change process—the development of new practices and behaviors (2000, p. 339). The colleges in the Learning College Project established a leadership team to coordinate the change process. The teams were comprised of representatives from all levels of the college community—administration, faculty, staff, and students. Institutions involved in this change process developed goals for the project to guide the institutions through the change process. The five project objectives of the Learning College Project were (“The Learning College Project,” 2003, ¶ 4):

1. Organizational Culture: Each of the 12 colleges will cultivate an organizational culture where policies, programs, practices, and personnel support learning as the major priority.

2. Staff Recruitment and Development: Each of the 12 colleges will create or expand (a) recruitment and hiring programs to ensure that new staff and faculty are learning centered and (b) professional development programs that prepare all staff and faculty to become more effective facilitators of learning.

3. Technology: Each of the 12 colleges will use information technology primarily to improve and expand student learning.

4. Learning Outcomes: Each of the 12 colleges will agree on competencies for a core program of the college’s choice, on strategies to improve learning outcomes, on

assessment processes to measure the acquisition of the learning outcomes, and on means for documenting achievement of outcomes.

5. Underprepared Students: Each of the 12 colleges will create or expand learning-centered programs and strategies to ensure the success of underprepared students.

The institutions committed to this change process have now entered the final phase of the transformation which centers on institutionalizing and standardizing all processes and is the point of convergence of the work generated in the preceding phases. This phase aligns with Owens's third stage in the change process—institutionalizing and standardizing the newly developed practices and behaviors (2000, p. 399).

At the beginning of this phase, the colleges articulated statements of institutional purpose and developed and began implementing strategic learning goals via a collaborative network of meetings, work groups, action teams, and other organizations with the institution ("Strategic Learning Plan," 2000, p. 2). As Dr. Sanford C. Shugart, President of Valencia Community College, stated in an open letter to faculty and staff: "We believe more learning gains and dramatic improvements in student learning will come by redesigning our organization to eliminate habits, structures, and procedures that defeat good teaching and learning while creating new structures that support them" (p. 1).

Learning Theories

Seven Principles for Good Practice in Undergraduate Education

In 1986, the Wingspread Group on Higher Education, under the leadership of Chickering and Gamson, reviewed all the literature on learning in college and developed a set of principles for good practice in undergraduate education. Good practice in undergraduate education:

1. encourages student-faculty contact
2. encourages cooperation among students
3. encourages active learning
4. gives prompt feedback
5. emphasizes time on task
6. communicates high expectations
7. respects diverse talents and ways of learning (Chickering & Gamson, 1999, p. 76)

The above principles represented six influential forces in education: (a) activity, (b) expectations, (c) cooperation, (d) interaction, (e) diversity, and (f) responsibility (Chickering & Gamson, 1987, ¶ 7). O'Banion (1997b) indicated that "these seven principles could form a solid pedagogical foundation for the learning college. They can be expanded and enhanced in coming years as educators begin to apply new understandings about learning that are emerging" (p. 83).

Constructivist Learning Theory

In the constructivist learning model, the instructor's role was one of facilitation rather than lecturing resulting in a shifting of responsibility for learning from the instructor to the learner (Moon, 1999). In the constructivist view of learning, "knowledge is 'constructed' by each learner in terms of his or her own perceptions of the world" (O'Banion, 1997a, p. 83).

Glatthorn and Fox (1996) developed a set of principles for learning based on the constructivist view of learning. The principles they developed were:

1. Learning is an active, meaning-making process. It is not passive and receptive.
2. Learning at its best involves conceptual change.
3. Learning is always subjective and personal.
4. Learning is contextualized.
5. Learning is social.
6. Learning is affective.
7. The nature of the learning task is crucial and should be characterized by relevancy, authenticity, challenge, and novelty.
8. Learning is strongly influenced by the learner's development.
9. Learning at its best involves metacognition, reflecting on one's learning throughout the entire learning process. (pp. 5-6)

O'Banion (1997a) indicated that the constructivist view of learning provided:

additional building blocks for creating a foundation for the learning college. In the learning college the student is responsible for constructing his or he own learning by active involvement in creating learning opportunities and by direct participation in the opportunities created. Learners learn best by doing (p, 85).

Brain-Based Learning Theory

The brain-based theorists believed that learning occurred in the brain unless the brain was “prohibited from fulfilling its normal processes” (“Brain-Based Learning,” n.d, ¶ 1). Two noted researchers on brain-based learning, Caine and Caine (1990), developed the 12 core principles of brain-based learning:

1. The brain is a parallel processor;
2. Learning engages the whole physiology;
3. The search for meaning is innate;
4. The search for meaning comes through patterning;
5. Emotions are critical to patterning;
6. The brain processes wholes and parts simultaneously;
7. Learning involves both focused attention and peripheral perception;
8. Learning involves both conscious and unconscious processes;
9. We have two types of memory: spatial and rote;
10. We understand best when facts are embedded in natural, spatial memory;
11. Learning is enhanced by challenge and inhibited by threat; and

12. Each brain is unique. (pp. 66-69)

O'Banion (1997a) included these 12 core principles of brain-based learning as one of the learning theories underpinning the learning college because these principles "form a complementary pattern that frames the foundation for the learning college" (p. 89). According to O'Banion, the new ideas about learning viewed learning as "organic and natural, . . . unique for each person, and . . . related to personal meaning and real life" (p. 89). Furthermore, O'Banion indicated that "the new learning, supported by creative applications and use of new technology, builds a solid foundation for the learning college of the future" (p. 89).

Libraries and Learning-Centeredness

There is little literature written specifically on the subject of academic libraries and the learning-centered concept; what is available is generally written for the public school environment. The scope of the literature review, therefore, focused on the available information that could be applied to higher education. In an article written about the implications of research on learning-centered libraries, Stripling (1995) stated: "The implications from [Pitts's] dissertation touch many facets of the library media center program, but most specifically the instructional program. The overarching implication is that library programs must be based around learning, not around libraries" (p.163).

Stripling added:

The process of rethinking a library program based on research seems daunting. First we must identify from the research what we know about learning. Then we must derive the implications from those findings for learning, planning, and teaching through the library. Finally, we must evaluate honestly the effect of our programs on student learning (p. 163).

Stripling further stated: “The library is in a prime position to lead the focus on learning . . . To create learning-centered libraries, we must understand fundamental principles about learning, information literacy, instructional design, collaboration, teaching, collection development, assessment and building communities of learning” (1999, p. xviii).

In an article discussing trends that affected future library information studies, Hayes stated: “In this era of continuous learning, we will see many changes in academic institutions in general as well as in the departments that deal specifically with library information studies. Some of the trends that are coming into focus include implications for a learning-centered environment (rather than a focus on the traditional ‘access to information, campus-based’ one), meaning that information goes to the people rather than the other way around” (1999, p. 5). In an article on the faculty/librarian relationship, Evans asserted that “the library’s evolving role in a digital age is one that helps to facilitate collaborative learning by blending content information, technology and active learning. . . The internal partnership between faculty and reference librarians at SFCC [Santa Fe Community College] is a collaborative union that forms an ideal conduit for

actualization of a student-centered, learning-centered environment, as well as incorporation of technology in traditional classroom instruction” (2001, pp. 47-51).

Research Questions

The questions addressed through the semi-structured telephone interviews were as follows:

Research Question 1: What is a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges?

Research Question 2: By their own definition, how did the libraries in the Vanguard Learning Colleges become more learning-centered?

Research Question 3: What opportunities presented themselves to the libraries in the Vanguard Learning Colleges as they arose to the challenge to become more learning-centered?

Research Question 4: What challenges did the libraries in the Vanguard Learning Colleges encounter on their journeys to become more learning-centered?

Research Question 5: What were the salient differences in experiences in the journeys of the libraries in the Vanguard Learning Colleges to become more learning-centered?

Methodology

Population

The population of this study was comprised of the library administrators, or their designees, of the 12 Vanguard Learning Colleges—Cascadia Community College, Community College of Baltimore County, Community College of Denver, Humber College, Kirkwood Community College, Lane Community College, Madison Area Technical College, Moraine Valley Community College, Palomar College, Richland College, Sinclair Community College, and Valencia Community College.

Instrumentation and Other Sources of Data

The primary source of data came from semi-structured telephone interviews (See Appendix C) with the library administrators, or their designees, of the 12 Vanguard Learning Colleges. Other sources of data were archival in nature and included documents, such as library mission statements, library policies, library strategic planning documents, library survey instruments, library assessment plans, and data from the Academic Library Survey from the 2002 survey.

The telephone interview questions were open-ended in nature and were developed based upon the objectives of the Learning College Project. A panel of experts comprised of colleagues in the library community and social research community reviewed and confirmed the questions. A library administrator at Valencia Community College agreed to pilot test the instrument in a telephone interview before the questions were utilized to

gather data from the other libraries in the Vanguard Learning Colleges so as to confirm the adequacy of the questions and identify questions in need of revision (See Appendix D for a list of the panel members and the timeline for development of the questions). Only after the questions had been piloted were they used to gather data.

Data Collection

The data for this study were collected using case study methodology. The case study methodology was chosen because it best meets the needs for data collection and analysis of the journeys of the libraries in the Vanguard Learning Colleges.

All library administrators in the Vanguard Learning Colleges were contacted in early July 2003 to determine their willingness to participate in this study. The library administrators who agreed to participate were interviewed by telephone during the month of July 2003 and early August 2003 using the questions that were reviewed and confirmed by the panel of experts and piloted by the Valencia Community College library administrator. The telephone interview questions were sent to the library administrators prior to the scheduled interview appointments. The researcher tape recorded the interviews, with the permission of the library administrators, and transcribed the data collected during the interviews for analysis. A list of categories by which the data were analyzed was developed from a review of the literature and from the data. The researcher sought to identify patterns of recurring data from the telephone interviews and the archival data.

Archival data for this study were obtained from each library's mission statement, policies, and strategic planning documents. Other data were obtained from the Academic Library Survey results for each library from the 2002 survey, or in the case of Humber College in Ontario, from the 2002 ACRL survey.

Data Analysis

The researcher analyzed the collected data based on the data analysis spiral developed by Creswell (1998). The data analysis spiral consisted of four loops:

1. Data management: In this process, the researcher organized files and converted these files to appropriate text units for analysis either by hand or by computer.
2. Reading, memoing: In the second loop, the researcher continued analysis by getting a sense of the whole database. Writing memos in the margins of the transcripts helped in this initial process of exploring a database. These memos were short phrases, ideas, or key concepts.
3. Describing, classifying, interpreting: In the third loop, category formation represented the heart of qualitative data analysis. The researcher described in detail, developed themes or dimensions through a classification system, and provided an interpretation or some combination of these analysis procedures.
4. Representing, visualizing: In the final phase of the spiral, the researcher presented the data, a packaging of what was found in text, tabular, or figure form. (pp. 145-146)

Organization of the Study

Chapter 1 introduces the problem statement and its design components. Chapter 2 presents a review of the literature and related research relevant to the problem of this study. Chapter 3 describes the methodology and procedures used for data collection and analysis. Chapter 4 presents an analysis of the data. Chapter 5 provides a summary and discussion of the findings of the study, implications for practice, and recommendations for future research.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

This review of the literature addresses relevant readings on the topic of this study—libraries in a learning college. The literature review is organized into two parts; the first part discusses the role of college libraries in student learning; the second part discusses the learning-centered movement in higher education.

The first part begins with the history of college libraries in America. The history is included in the literature review because it provides a basis for understanding the impact of the changes that college libraries have experienced over the years and for evaluating how far the college libraries have developed toward becoming learning-centered. Since college libraries must be accredited, a section is devoted to accreditation and standards and the key components of a library program. The final section discusses the Kuh and Gonyea study—a landmark study on the role of college libraries in promoting student engagement in learning.

The second part begins with the historical context of the learning-centered movement in higher education. As in the first part, the history provides a basis for understanding and a framework for evaluating the impact of this movement. The next section focuses on the learning paradigm as espoused by Barr and Tagg who were Palomar College professors at the time they wrote about this phenomenon. The next

section discusses the application of the learning paradigm in an ideal college called the learning college. The next section focuses on the learning college concept and includes a timely study on building learning colleges conducted by Robles in 1999. The final section discusses a real world application of the learning college concept in the Learning College Project, sponsored by the League for Innovation in the Community College.

The Role of College Libraries in Student Learning

History of College Libraries in America

The history of college libraries reported in this literature review is, unless otherwise indicated, based on Michael Harris's book *History of Libraries in the Western World* published in 1995.

Colonial College Libraries

College libraries have been in operation on the campuses of the colleges and universities in America as far back as the 17th century. The libraries in the colonial colleges were usually begun with the donation of a private collection of books and other materials, such as maps and pamphlets. In 1638, the library at Harvard College started with a donation of 280 books and a small endowment by the Reverend John Harvard. After its inception, the library continued to grow with the donations of other famous persons, such as Governor John Winthrop; however, the growth of the collection was extremely slow. In 1723, the first catalog was published, and it contained only 3,500

volumes. The majority of the collection consisted of books on religion; other subjects included history, geography, classics, science, and languages.

After 125 years, the library collection had grown to only 5,000 volumes which meant that the collection grew by an average of 40 books per year. Tragedy struck in 1764 when a fire broke out in the library and burned almost the entire collection; however, this tragedy spurred the legislature of Massachusetts to vote to provide funding to replace the building. In addition, a subscription program raised funds to purchase new books. The action of the Massachusetts legislature was the first example of governmental funding for libraries in America. By 1775, the library collection was fully restored.

The rules for using the library at Harvard were quite simple and very restrictive. Only junior and senior students could check out books from the library, and the library was open and heated on Wednesdays only. As stringent as these rules appear, earlier rules restricted student use to seniors.

The library at Harvard was followed by the development of libraries at William and Mary in 1693, Yale in 1700, College of New Jersey (now known as Princeton) in 1750, King's College in 1757 (now known as Columbia University in New York), Rhode Island College (now known as Brown University in Providence), and Dartmouth in 1770.

The experiences of the development of the library at Harvard was typical of the colonial college library—the collection was usually begun with the donation of a private collection or collections; the library was open for a few hours each week; the organization of the library was usually an added duty with no extra pay for some hapless

faculty member; the library was primarily used by faculty since students generally had very restricted access and borrowing privileges; an annual budget was nonexistent; and the library was not very well supported by administration.

Since there were limited free circulation privileges in the colonial college libraries, many colonials belonged to subscription libraries and bought books for their personal collections from bookstall vendors (Pulliam & Van Patten, 1995).

College Libraries in the Antebellum Period

The colonial college libraries continued their pattern of slow growth during this period in American history. Many of the libraries experienced setbacks in development during the Revolutionary War. Another development occurred during this time period-- departmental libraries, special libraries, and student society libraries were formed. For example, at Yale, the Law School Library opened in 1845. The other special library on campus was the Theological Library. There were two student society libraries--the Linonian and the Brothers Unity libraries.

The student societies were usually focused on debating, and their libraries were developed to provide student members with access to resources to support their research needs and circulation privileges that the college libraries were not providing. Another area lacking representation in the antebellum college libraries was contemporary and popular fiction. To meet the needs of the students' interest in reading books in this area,

the student society libraries added these types of books to their ever-growing collections, which often far surpassed their own college libraries.

In *Notices of Public Libraries in the United States* published in 1851, Charles Coffin Jewett characterized the college libraries during the antebellum period as ““frequently the chance aggregations of the gifts of charity; too many of them discarded, as well nigh worthless, from the shelves of donors”” (Harris, 1995, p. 180). The libraries during this period followed a pattern of growth similar to the colonial college library development. The typical college library prior to the Civil War: (a) was small, usually less than 25,000 volumes comprised mainly of gifts; (b) had little or no direct financial support from administration; (3) open to students very few hours per day or week; (4) had a collection that was comprised of old books; (5) had little attention given to making the library attractive or welcoming; (6) had a design that was usually ill-fitted for library usage; (7) was supervised by a faculty member who did not receive compensation for this extra duty; (8) had rules that were strict and inflexible; (9) had librarians whom students feared; (10) had books in the collection that were classified by a locally-developed system; (11) and had a catalog that was either printed or hand-written and kept by location, author, or broad subject categories (pp.180-181).

College Libraries 1850-1900

College libraries after the Civil War were greatly influenced by three developments in the financial, educational and professional areas. These forces served as a catalyst for change in the nature and role of the college libraries.

Financial Development

Prior to 1900, the rapid growth and expansion of financial resources profoundly impacted the colleges and universities in a variety of ways:

1. The development of a surplus of wealth, a proportion of which found its way into the coffers of academic institutions, had a significant effect on the development of American higher education.
2. Large-scale philanthropy was being directed toward American higher education, and not a small proportion of this money was being devoted to the construction and development of library resources.
3. American business, industry, and government were becoming acutely aware of the need to produce the specialized technical experts necessary to staff the burgeoning research and development of American industry.
4. All of these sectors pushed actively for the establishment of institutions of higher education explicitly charged with the responsibility of training such personnel. (Harris, 1995, p. 249)

The Morrill Land Grant Act of 1862 was the result of these forces. This grant provided federal funding for the establishment of technical and agricultural colleges and universities. The libraries of these institutions benefited from this influx of funds and became “some of the finest in the land” (Harris, p. 250). The Second Morrill Act of 1890

provided \$15,000 to each of the original land grant colleges annually which resulted in an increased pace of expansion (Pulliam & Van Patten, 1995).

Educational Development

During this time in our history (1850-1900), there were numerous developments in the area of higher education that influenced the development of college libraries. These developments were, as follows:

1. The introduction of new courses, especially in the biological and physical sciences, contributed to an increased specialization.
2. The gradual acceptance of the “elective system,” as opposed to the prescribed curriculum so common to higher education, provided for the development of a more sophisticated curriculum and a degree of specialization among students and faculty that had previously been unknown.
3. The influence of the German educational system contributed greatly to the rise of American higher education and the development of college.
4. [There was] a growing emphasis on the significance of research as a major component of the academic institution’s role in society. This concept, combined with the German idea of the seminar as a principal means of education, especially with graduate students, made library resources a high priority. (Harris, 1995, p. 251)

These developments led to the “emerging consensus that the library constituted the very ‘heart’ of any self-respecting academic institution” (Harris, p. 251). By 1900, this consensus of the role of the college libraries led to increased financial support, which, in turn, caused the college libraries to become a key element in the educational process.

Professional Development

The growth of professional development was the final force that influenced the development of college libraries. Of the series of professional developments that occurred in this time in our history, the founding of the American Library (ALA) in Philadelphia in 1876 was perhaps the most influential (Harris, p. 250; “Our Association,” 2003, ¶ 1). The mission of this organization was “to provide leadership for the development, promotion, and improvement of library and information services and the profession of librarianship in order to enhance learning and ensure access to information for all” (“Our Association,” ¶ 1). The American Library Association was predominantly comprised of public librarians. In 1890, ALA established a section for college libraries; thus the College and Reference Library Section was born (Davis & Petrowksi, 2002). In the early years of its existence, this section served as a forum for discussion for college librarians. In 1938, this section was renamed the Association of College and Research Libraries (Davis & Petrowski).

A new class of professional librarians, such as Melville Dewey, creator of the Dewey Decimal Classification System, and Justin Windsor, fostered the “ideal that books in libraries were an essential ingredient in any educational recipe” (Harris, 1995, p. 250). This new class of professional librarians provided a model for others to follow for professional leadership in the improvement of library services and collections. Library collections increased so rapidly that it was not unusual for a library to double in size every 16 years. The rapid growth was a double-edged sword. On the one hand, the rapid

growth of services and collections was a welcome development; however it placed tremendous strains on the library staff that were charged with the task of expanding and organizing the ever-increasing collections. Larger collections equated to larger facilities which challenged the colleges' building programs to keep up with the pace of growth.

College Libraries in the Early 20th Century

Library collections continued their unparalleled growth during the early part of the 20th century. Buildings were strained to house the burgeoning collections. For the first time in history, new library buildings were being designed specifically for library purposes. The larger campuses experienced a growth in special collections and departmental libraries. There were more professional librarians on staff due to the increase in the availability of library schools; however, small colleges often did not have a professional librarian until the 1920s. At these colleges, the one-member library staff were the standard organizational model.

Little by little, libraries took a more active role in the academic programs. A shift in teaching strategies led to more student usage of the resources of the libraries. Faculty members took more of an interest in the development of the collections. These changes created a demand for a new way of organizing and arranging books and other materials. In some college libraries, the entire collection had to be recataloged using the new classification systems.

Philanthropy played a large role in the growth of college libraries in the early part of the 20th century. John D. Rockefeller purchased entire library collections in Europe and America plus the inventory of a bookstore which he donated to the University of Chicago. The Carnegie Corporation donated building funds to some of the colleges and universities and “provided funds for library schools, surveys, recataloging projects, and publications” (p. 253); however, public libraries were the major recipients of Carnegie’s philanthropy. The total price tag for the Carnegie library project was \$68,333,973 which would be well over \$1.5 billion in 2003 dollars (Jones, 1997).

Organizational conflict increased on the campuses. There were some people who favored an organizational structure that included departmental libraries while others wanted a centralized library collection. Because of the cost of the building programs, the centralized organizational structure usually predominated; however, departmental libraries continued to have a presence on the larger campuses.

Like all other aspects of American life, college libraries were drastically impacted by the economic depression of the 1930s. Although building programs, staff, and funding were severely reduced, the needs and demands for library services continued to soar. Many college libraries established “Friends of the Library” associations as donations and funding continued to dwindle and failed to meet the needs and demands for library services. Harris (1995) reported:

Fortunately, federal government assistance in the form of Works Progress Administration and the National Youth Administration provided much needed assistance, and useful projects in binding, cataloging, indexing, and building repairs were carried out. In a few cases, library buildings were constructed with federal aid, and on almost all campuses federally aided student assistants were plentiful. Moreover, the W.P.A. public records projects gave great aid to libraries in general through their indexing, abstracting, microfilming, and publishing of research materials. (p. 254)

In the worst of times, there can be a silver lining—such was the case for college libraries. The dire circumstances in which they found themselves caused them to reflect on their role in the academic setting. As a result, standards, codes of ethics, and the library school curriculum were addressed at library conferences. Faced with meeting the increasing needs and demands for library services, library leaders devised innovative ways to provide more efficient library services. New ways of inventory control and circulating materials were developed and widely accepted. The demand for space resulted in the development of microforms for newspapers, periodicals, and government documents. Collaboration for resource sharing among libraries flourished—union catalogs were further developed; interlibrary loan systems were expanded; and cooperative acquisition programs were implemented.

Hard times continued to befall college libraries through the 1930s, and librarians were constantly challenged to provide more resources and services with less and less funding. The libraries had barely recovered from the effects of the Depression when they were faced with new challenges at the onset of World War II. Although there was a tremendous infusion of funds to provide resources for training soldiers and specialists,

there was a shortage of staff available. Harris stated that “the demands for books and services for the new programs, the newly organized academic departments, and the war information centers severely taxed the abilities of even the largest libraries” (Harris, 1995, p. 255). As was evident in the 1920s, new and innovative ways of meeting the needs and demands for library services emerged—new methods and tools were developed, and thousands of people were recruited to the profession; all of which combined to strengthen the college libraries. The statement from earlier library history that the library was at the heart of the institution became truer than ever. All across the nation, college libraries began to demand more funding, more buildings, and more staff.

College Libraries Post World War II to the Beginning of the 21st Century

The end of World War II heralded an unprecedented period of growth in college enrollments as thousands of veterans descended upon the campuses seeking higher education degrees. This period of growth impacted the college libraries by placing more demands for library services and resources and taxing the existing library facilities. Harris (1995) reported that “By the 1950s, most college and university libraries had building programs, either in the form of new buildings or annexes, often accompanied by reorganization of library procedures and reclassification of the book collections” (Harris, 1995, p. 255).

A paradigm shift in teaching methods to using more non-book materials for research motivated the college libraries to change the scope and nature of their

collections to include a wide array of audio-visual materials. Due to lack of storage space, departmental libraries once again thrived on the college campuses. Building programs were now being designed with a consideration for access and storage of the non-book materials now included in the collections. College library collections were now doubling in size every 20 years.

The Great Society was Lyndon Johnson's plan to "end poverty, promote equality, improve education, rejuvenate cities, and protect the environment" ("John Gardner," ¶ 1). Johnson was particularly concerned that in "1964, 8 million American adults had not finished 5 years in school; more than 20 million had not finished eight years; and almost a quarter of the nation's population, around 54 million people, hadn't finished high school" ("The Great Society," n.d. ¶ 8). Congress passed the Higher Education Act in 1965 in response to Johnson's education reform program in which he expressed that there was a:

need for more higher education opportunities for lower and middle income families, program assistance for small and less developed colleges, additional and improved library resources at higher education institutions, and utilization of college and university resources to help deal with national problems like poverty and community development. ("The Early History," n.d., ¶ 3)

College libraries flourished under the auspices of the Higher Education Act of 1965. The Higher Education Act of 1965 provided much needed funding for the acquisitions of library resources, for the education and training of librarians, and for research in the library science field. Harris reported that "new buildings were completed or under way on many major campuses throughout this period, and in 1968, alone, there

were at least sixty-eight major library building projects in process” (Harris, 1995, p. 256). The junior college concept was implemented all across the nation during this period, and their libraries were frequently based on poorly-equipped high school libraries. The states that properly planned new junior colleges usually included library resources and facilities in their planning process. Microforms and the availability of reprinted resource materials made it possible to open these libraries “with collections that were reasonably adequate on opening day” (p. 256). During this time, accrediting bodies did much to influence the quality of library resources and facilities through the establishment of library standards.

The information explosion proved to be the next challenge that the college libraries faced. The plethora of materials generated by the information explosion strained the libraries’ facilities. Interlibrary or cooperative storage centers were created to help solve the storage problem. The New England Deposit Library was the first of these centers developed. The libraries in the Boston area operated this center. The center stored “newspaper files, runs of older periodicals, sets of little-used works, state and foreign documents, and miscellaneous ephemeral material” (Harris, 1995, p. 257).

The Midwest Inter-Library Center was the next center to be developed. A group of college presidents combined forces to come up with a plan to reduce building costs while still providing access to materials that received little-use. The Midwest Inter-Library Center was the result of their planning. The center is now called the Center for Research Libraries.

Cooperation flourished during the 1960s as a result of storage and accessibility issues. Perhaps the most extensive cooperative that was developed during this time was Ohio's College Library Center. The center was created to "provide a computerized bibliographic utility accessible to all college libraries in Ohio" (Harris, 1995, p. 257). This center later became the Online Computer Library Center (OCLC) and has increased its members to include all types of libraries across the nation. Libraries joined cooperatives in order to benefit from new technologies; their decisions were motivated by "financial pressures and a growing cooperative spirit" (Harris, p. 257).

The Research Libraries Information Network (RLIN) was the next cooperative to be developed. Its system was based on software designed at Stanford University. This center was "designed to provide the usual services of a bibliographic utility for large research libraries" (Harris, 1995, p. 259). Because of a drastic drop in available funding for RLIN, OCLC took the lead in this area.

In the 1970s, many community college libraries "underwent a major transformation when they became Learning Resource Centers (LRCs)" (Cohen, 2003, p. 182). In addition to the traditional collections of books and periodicals and services, LRCs offered resources in a variety of formats with expanded services in new facilities designed specifically for this transformation or in remodeled facilities. Cohen indicated, "about one-third of the LRCs also had career information centers and computer-assisted-instruction terminals" (p. 182).

The 1970s and early 1980s, libraries and the communities they served were lulled into a false sense of security. Libraries were so “patently, palpably good that they needed no justification” (Gorman, 2000, p. 31). According to Gorman:

academic institutions competed with each other about their libraries and boasted the size of the collections and the excellence of their staff; schools gave pride of place to their libraries and librarians; and companies, governments, and other entities developed libraries and library services at a great pace. (p. 31)

As had happened in the past, the good times came to an abrupt end largely due to a combination of a recession, a rise in cost for purchasing library resources, and the demand for technology. By the 1990s, many college libraries had reached “rock bottom” (p. 31); a lack of funding was the major factor in the decline of the libraries.

The transformation of LRCs has continued to evolve with some LRCs branching out into coordinating other learning support functions, such as tutoring, assistance with multi-media production, faculty and staff development, online publishing, and curriculum development both face-to-face and distance learning (Cohen, 2003). The readily available access to the Internet for the general population has afforded libraries an opportunity to drastically expand their sphere of influence by providing 24/7 access to online resources, such as other library catalogs, databases, and electronic books (ebooks). The hours that reference assistance has been available to users continue to increase; in time, this service will also be available 24/7.

Accreditation and Standards for College Libraries

The purpose of accreditation has been to assure quality, provide access to federal and state funding, assist in the transfer of courses, and to ensure employers' trust in the quality of courses or degrees when making tuition assistance decisions ("Council for Higher Education Accreditation," 2003; Eaton, 1999). The Council for Higher Education (CHEA) has coordinated the accreditation process in the United States. CHEA has maintained a database on accreditation information for 6,500 colleges and universities in the U.S.

According to Eaton (1999), accreditation is "a process of external quality review used by higher education to scrutinize colleges, universities, and higher education programs for quality assurance and quality improvement" (p. 3). Accreditation has been the primary method for potential students, governments, and the media to know if an institution has been providing a quality education ("Council on Higher Education Accreditation," 2003).

There have been six regional accrediting organizations that set standards or guidelines for college libraries in the United States; these accrediting organizations have been recognized by the U.S. Department of Education. The regional accrediting organizations were: The Southern Association of Colleges and Schools (SACS), Middle States Commission on Higher Education (MSA/CHE), New England Association of Schools and Colleges (NEASC), The Higher Learning Commission of the North Central Association of Colleges and Schools, Commission on Colleges of the Northwest

Association of Schools and Colleges, and the Western Association of Schools and Colleges (WASC).

The requirements for receiving or reaffirming accreditation lie in the standards and policies of the accrediting organizations. Among the regional accrediting organizations, these standards vary; however, they generally fall under the following categories: “student achievement, curriculum, faculty, services and academic support for students, and financial capacity” (“Accrediting Organizations,” 2002, p. 1).

The standards established by the six regional accrediting organizations have typically been minimum standards. For standards to which college libraries should aspire, library administrators consult the standards developed by the Association for College and Research Libraries. ACRL’s development of ideal standards has made a major contribution to librarianship in higher education (Davis & Petrowski, 2002). The ACRL College and Research Libraries Standards Task Force penned a draft of *Standards for Libraries in Higher Education* (2003). These standards pertained to college libraries that support academic programs in higher education institutions. These standards were unique in that they included standards for outputs and outcomes as well as standards for inputs or raw materials of a library program. The new standards encouraged each library to select a peer group for the purpose of benchmarking. Once the peer group has been identified, “points of comparison can be made to compare the strength of the library with its peers” (p. 329). If the comparisons are done on a regular basis, then the same points of comparison should be utilized. In addition to the *Standards for Libraries in Higher*

Education, ACRL has developed standards or guidelines for the areas of information literacy, academic and faculty status of librarians, hiring of librarians, distance learning, access, security and theft, and circulation.

Comparison of Regional Accreditation Standards That Affect College Libraries

This section has been, unless otherwise indicated, based on Bonnie Gratch-Lindauer's 2002 article entitled "Comparing the Regional Accreditation Standards: Outcomes Assessment and Other Trends."

In a comparison of the accreditation documents from the six regional accrediting organizations, several common themes emerged. In the area of mission and goals, all of the regional accrediting organizations stressed that educational quality should be defined by the usage of mission-driven standards in a goals-based assessment model. All of the accreditation documents clearly state an expectation that programs or units will develop and evaluate goals and will use the results of the evaluation to improve or modify programs or units. Gratch-Lindauer indicated, "libraries and learning resources are [clearly] included in this expectation" (p. 15).

In the area of outcomes, there is more emphasis on assessing student learning in the accrediting organizations that have revised their standards after 1998. Gratch-Lindauer stated that "assessment of student learning is clearly a priority, as evidenced by links on the accrediting associations' Web sites to publications, conferences, and workshops on student outcomes assessment" (p. 15).

In the area of specificity of accreditation requirements, the texts in the accreditation documents revised after 1998 were “less prescriptive and less concerned with measuring specific library and learning resources inputs” (p. 15). The accreditation documents revealed that there was a trend to place libraries and learning resources as a subsection under other parts of the document. In its place, there was more text on information literacy. These changes have made many librarians fear that libraries and learning resources have been forgotten and that without specific requirements, many administrators will decrease their level of support to libraries. Gratch-Lindauer opined that “most of the standards revised in the last three years have strengthened the teaching role of libraries and made the connections clearer between the use of libraries and information resources” (p. 16).

In the area of innovation and collaboration, the accreditation documents revealed that there was more support for “innovation, experimentation, and collaboration” (Gratch-Lindauer, p. 16). This dedication to innovation was evident in the 2001 *Addendum to the Handbook of Accreditation* from The Higher Learning Commission of the North Central Association of Colleges and Schools. In this addendum, the text reflected a “commitment to fostering a culture of assessment by promoting flexibility and innovation,. . . providing new services that share effective models of learning and provide new ways to work in partnership with stakeholders from higher education and the public” (as cited in Gratch-Lindauer, p. 16).

Information literacy was another area that was emphasized in the accreditation document written after 1998 which is a boon to the importance of libraries in the learning process. Gratch-Lindauer reported that “librarians have been involved in advocating for the inclusion of information literacy in the ‘Educational Program’ section of the standards in several of the regions where standards are being, or have been, revised” (p. 16).

In the area of distance learning and electronically delivered degrees, all of the accreditation documents have a requirement to provide documentation of access to information resources/services by faculty and students and how library and information services are evaluated. Furthermore, several of the accrediting organizations “require additional evidence, such as how students will learn to use online resources effectively and how these resources are incorporated into the curriculum” (pp. 16-17).

Gratch-Lindauer made several observations about outcomes and outcomes assessment:

1. The majority of these outcomes and outcomes-related statements that refer to libraries and information resources are located in sections of the standards that deal with the education program and institutional effectiveness.
2. The use of library and information technology resources is connected to student learning outcomes in six of the documents and evidence such as inclusion in course syllabi and integration of library use into the undergraduate curriculum are offered as measurable indicators for assessment purposes in two of the documents.
3. The library’s role in helping students develop information literacy skills is an important student learning outcome directly referenced in four of the documents and in the “Best Practices for Electronically Offered Degree and Certificate Programs” developed and endorsed by all eight accrediting commissions.

4. Assessing student needs, perceptions, and levels of satisfaction with educational support services (i.e. library and learning/information resources and services) and demonstrating that the findings from these user studies are used for program improvement is a fundamental expectation of all the regional accrediting commissions.
5. Appraisal of annual institutional goals and progress in their accomplishment is suggested as a type of evidence contributing to institutional outcomes, or in some of the documents the phrase used is “institutional effectiveness.”
6. Several of the documents refer to the campus climate or the institutional environment that supports teaching and learning. Three specifically connect library and information resources and services to the quality of the learning environment. The implication to be drawn is that libraries should clearly describe the resources and services they provide that directly support the learning environment, how these are used, and with what effects on students and faculty. (p. 18)

After completing the content analysis of the accreditation documents, Gratch-Lindauer formulated several observations and recommendations for librarians:

1. Librarians, in collaboration with faculty, play a major role in contributing content to the academic programs by teaching and evaluating information literacy skills.
2. Libraries and learning resource centers are also an important academic support unit and as such provide critical information services and resources that contribute to student learning.
3. Academic librarians can attempt to influence the revision of regional accreditation standards.
4. Librarians should be advocates on their campuses for relevant ACRL standards documents, particularly the standards and guidelines that address outcomes assessment, information literacy and distance education.
5. Librarians can also stay informed about current assessment projects of ACRL, the Association of Research Libraries (ARL), the Association of American Higher Education (AAHE), and other organizations involved with assessment. (pp. 19-20)

Libraries have continued to play a vital role in the teaching and evaluation of information literacy skills as well as a contributing role to the quality of the teaching and learning environment.

Key Components of a Library Program

The following section does not identify all of the components of a library program; only the primary components identified in the literature. The components and pertinent studies included in this section were library instruction, information literacy, collaborative relationships, outcomes and assessment, services, staffing, and the user-friendly library.

Library Instruction

Library or bibliographic instruction has been a key component in the learning process because it provides the format by which librarians have facilitated learning and promoted life-long learning. The format of instruction included such strategies as: (a) hands-on or experiential learning, (b) just-in-time or point-of-use instruction, (c) traditional courses, (d) orientation to resources and services, and (e) tutorials, both electronic and paper (ACRL College and Research Libraries Standards Task Force, 2003).

An awareness of the various learning styles of students has been an important element of effective library instruction (Bodi, 1990; Dalrymple, 2002; Gresham, 2001).

Gresham examined Kolb's theory of experiential learning as applied to library instruction in electronic classrooms and derived the following key observations:

1. Instruction sessions, one-time or otherwise, should be structured to allow students to proceed completely through multiple cycles of the learning process so that student experiences with technology build upon one another to ever-increasing levels of sophistication and complexity.
2. Classroom activities should be sequenced in ways that promote a logical progression through [Kolb's] four-step learning process.
3. Learners' concrete experiences...should be firmly grounded in the personal and social contexts of their lives as students...when provided opportunities for hands-on guided practices with information technology, students should also be given the freedom to choose search topics and relevant databases appropriate to their individualized needs.
4. Because adult learners...seem to learn better when engaged in supportive relationships with other learners in their class, problem-solving and theory-building activities. . . should make use of peer interaction and collaboration.
5. Instruction sessions...should include a variety of classroom activities that address each of the four learning-style preferences. Furthermore, instruction librarians should recognize that the learning-style dimensions of the [Kolb] model suggest that not all students will perform consistently or engage themselves uniformly as they progress through the learning process. (p. 21)

Fowler and Walter (2003) proposed that library administrators complement the library staff by adding an instructional leader position for the purpose of leading the instructional program beyond the mundane management issues. Fowler and Walter reported that Mader is one of the few authors to write about the library instruction coordinator being more than teacher or manager; in addition, Mader "identified five key leadership traits for a coordinator: vision, willingness to take risks, ability to inspire colleagues, ability to communicate effectively, ability to build teams, and a commitment

to innovative approaches to instruction” (as cited in Fowler & Walter, p. 466). Doyle-Wilch and Miller (1992) proposed that librarians play an important role in student learning by becoming “mediators of the learning process” (p. 124). Fowler and Walter indicated that there has been a need for a change in the way librarians coordinate or lead the library instruction programs. The following factors have driven the need for this change:

1. the commitment to information literacy as a strategic direction for academic libraries;
2. the need for more librarians to be involved in the design and delivery of instructional services, either alone, or in collaboration with members of the classroom faculty;
3. the rise of innovative, interdisciplinary initiatives on many college campuses that provide opportunities for rethinking the ways in which library instruction can support (and enhance) the academic curriculum;
4. the call to create student-centered learning opportunities that foster critical thinking and fluency in information technology; and,
5. the need to demonstrate measurable achievement in these areas through a systematic program of assessment. (Fowler & Walter, p. 466)

To achieve an effective library instruction program, Fowler and Walter (2003) recommended that the library instruction coordinator develop an innovative approach to “foster communication among colleagues” (p. 467), create “task forces to articulate the organization’s goals in terms of instruction and to facilitate greater collaboration” (p. 467) between library instructors and faculty, and conduct a campus environmental scan to determine “complementary instructional initiatives originating outside the library and

identify the best way to communicate this information to colleagues within the library” (p. 467). Library instruction coordinators have been asked to assume a new role within their organizations; these new roles have led to moving colleges toward the development and implementation of information literacy programs.

Gorman (2000) proposed that the library instruction program of the 21st Century should have three levels of components—from basic to advanced and should be applied to both the formal library instruction and the informal one-on-one instruction:

1. basic library and computer skills: students learn about libraries—what they are and what they contain
2. how to identify, locate, and use appropriate sources: library users become aware of the bibliographic structure of the library and the ways in which we organize recorded knowledge and information for retrieval
3. critical thinking: librarians make it possible for users to acquire the ability to evaluate and judge documents in all forms and from all sources (pp. 111-112)

Gorman endorsed the belief that the “rational approach to librarianship demands that we dispense instruction and, in so doing, enable library users to be empowered by knowledge and relevant information” (p. 112).

The rapid rise of readily available access to information has created a new learning environment, which has implications for library instruction (Dowler, 1997).

Dowler made several observations about the implications for library instruction:

1. The learner now has access to information apart from the instructor which has created new expectations for learners and instructors. The learner is now expected to “take more responsibility for information gathering through exploring information resources and communication networks.”

2. The librarian must “help the learner sift through, interact with, and make meaning from vast amounts of information,” a process which shifts the focus of the role of the library instructor from disperser of information to facilitator/mediator of learning. Another observation by Dowler was that the basic unit of information has shifted from book to “bits of information.”
3. The “way we search for [and locate] information influences and sometimes even determines how we develop knowledge, and the way the information is organized... defines what we find.”
4. Information was previously “stored and distributed...now [it is] distributed and stored.”
5. The interaction medium for the learner has shifted due to the change in the way information is stored and distributed.
6. The learner is now responsible for making meaning out of knowledge. (p. 173)

Instruction opportunities occur daily at the reference desk. Librarians must learn to capitalize on “teachable moments” whenever they occur. Elmborg (2002) defined teachable moments as “one in which the student arrives at a position where he or she is open to teaching” (p. 461). In the traditional reference interview, the librarian “determines the needs of the user through the interview and performs the actual search as a service” (p. 462). Unfortunately, the helpfulness of librarians deprives the learner of the experience of “participat[ing] in every decision in order to learn to be independent” (p. 462). Elmore indicated that “librarians need to become coaches and collaborators at the reference desk, people willing to teach students to ‘talk the talk’ of research...and understand that all questions represent natural stages in a learner’s life” (p. 463).

Dalrymple Study of Library Instructors and Learning Theory

In 2000, Dalrymple (2002) surveyed 1500 members of the ALA Library Instruction Round Table. Of the 1500 surveys distributed, 908 respondents or 60.5 % returned the surveys; thereby, ensuring that the results met the requirements for 95 % confidence level. Dalrymple used Spearman's rho to assess the correlation between nonparametric variables and analyzed the data using SPSS 10 for Windows.

The purpose of this study was to determine “how instruction librarians and other librarians interested in user education learn, assimilate, and utilize learning style theory” (p. 263). The results indicated that 82 % of the respondents have heard of learning style theory. The high correlation between librarians working in an educational arena and a higher awareness of learning style theory lent credence to concluding that “the more involved one has been with education as a professional, the more likely it is that one will have knowledge of learning style theory” (p. 267). In addition, Dalrymple reported that “there was a slight, but significant, positive correlation between [librarians'] awareness of learning style theory and the desire to learn more about instruction or education” (p. 267)

Dalrymple suggested two areas for further research:

1. Librarians need to put aside their concerns about time limitations and develop and share more models of learning style—sensitive instruction as applied in both the one-shot and the extended contact settings.
2. After these models have been developed, they need to be tested in a rigorous, scientific manner so that librarians can know what works and what does not. (p. 272)

Manuel, Molloy, and Beck Study of Faculty Expectations in Library Instruction

At the ACRL Eleventh National Conference in April 2003, Manuel, Molloy, and Beck presented the results of their study of faculty expectations in library instruction. This study sought to discover why some faculty frequently used librarian instruction and whether statistical significance existed between the heavy users of library instruction and a control group that was established for this study.

Manuel et al. expressed the belief that “librarians’ ability to collaborate effectively with faculty in LI [library instruction] would be heightened if they had a better sense of why those faculty members who *do use* librarian-provided instruction with their classes make this choice” (p. 2). This belief was the underlying foundation for their study.

Manuel et al. utilized both qualitative and quantitative research methods to conduct their study. For the qualitative data, the researchers conducted in-depth interviews with faculty members who were randomly selected from the target population of heavy library instruction users. For the control group, 100 faculty members who did not meet the selection criteria were selected. For the quantitative data, the researchers developed a survey which was designed to measure if there is statistical significance between heavy library instruction users and non-heavy users of library instruction.

The results indicated that heavy library instruction users were not statistically different from the control group in their perceptions of the climate of the organization. Some concerns emerged from the analysis of the interviews and the survey results that

librarians need to address in order to be able to work more effectively with faculty in the area of information literacy. Those concerns were:

1. the meaning of collaboration: There were discrepancies between faculty's perceptions of the meaning of collaboration and the librarians' perceptions of the term. Some faculty wondered what the survey had to do with librarian instruction, learning resources, or strategies. Another area of concern was the lack of criteria that librarians might be able to utilize to identify potential collaborators with some degree of accuracy.
2. the value of library instruction: Not all faculty placed as much importance on the value of learning how to do information research as librarians. This was true even of the heavy users of library instruction. This concern has posed obvious problems for librarians who seek to collaborate with faculty because "true" collaboration has been based on mutual goals.
3. faculty culture: Faculty have often viewed the role of librarians in the learning process as a lesser role. Some faculty have been reluctant to teach information literacy skills within their curriculum because they perceived that these skills align better in a general education curriculum. Another area of concern within the faculty culture was an awareness that institutions have not typically recognized or rewarded collaboration. (pp. 6-7)

Information Literacy

Our students have increasingly been bombarded with hordes of information from various sources, such as the media, the entertainment industry, the Internet, and their educational institutions. Helping students to make sense of this information quagmire, to create new knowledge, and to apply their newly gained knowledge to their personal, professional, and educational lives has been a goal of information literacy programming in the educational systems, both in the K-12 environment and in the higher education environment (American Library Association, 1989; Rockman, 2003; Todd, 2000).

In 2000, Limberg conducted a study to determine if there was a link between information seeking behaviors of twenty-five high school seniors and learning outcomes. The results of the study indicated: (a) students' understanding of the context of the course influenced their information seeking behaviors and application of knowledge; and, (b) students' skills in using and searching for information influenced the methods they employed to conduct research, the ways they constructed the information discovered in the research, and quantity of content learning.

In 2000, the Association for College and Research Libraries issued a set of standards for information literacy for institutions in higher education. These standards advocated information literacy as the foundation for helping our community of users become lifelong learners; lifelong learning has become an essential mission of higher education institutions. Inherent in information literacy was the idea that it had been "common to all disciplines, to all learning environments, and to all levels of education" (ACRL Standards Committee, 2000, ¶ 2). The information literacy standards adopted by ACRL recommended that information literate citizens have the ability to:

1. determine the extent of information needed
2. access the needed information effectively and efficiently
3. evaluate information and its sources critically
4. incorporate selected information into one's knowledge base
5. use information effectively to accomplish a specific purpose

6. understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (§ 2).

Collaboration has been the key element in developing and implementing information literacy programs on our nation's college campuses. The key players in this collaboration were: faculty, librarians, and administrators. Faculty were needed for their content expertise; they also "inspire students to explore the unknown, offer guidance on how to best fulfill information needs, and monitor students' progress" (ACRL Standards Committee, 2000, § 8). Librarians were needed for their expertise in coordinating the information literacy program and for their knowledge of and organization of learning resources. Administrators were needed for their ability to support information literacy programs by creating "opportunities for collaboration and staff development among faculty, librarians, and other professionals who initiate information literacy programs, lead in planning and budgeting for those programs, and provide ongoing resources to sustain them" (§ 8).

The standards have been used in a variety of ways. One way has been to use the standards as a framework for evaluating the level of information literacy of our learners. A benefit of using the standards as an evaluation framework was that it created an opportunity for articulation to occur between the K-12 environment and the higher education environment "so that a continuum of expectations develop[ed] for students at all levels" (ACRL Standards Committee, 2000, § 12). Another way the standards have been used has been to provide students with a "framework for gaining control over how

they interact with information in their environment” (§ 13). Another way the standards have been used has been to provide a framework for establishing criteria for measuring student competencies in information literacy.

In our higher education institutions, information literacy has been implemented at various levels. The basic level of implementation has been to incorporate information literacy into the library instruction curriculum. The second level of implementation has been to develop a stand alone information literacy course or courses. The most intrinsic level of implementation, and one highly recommended by ACRL, has been to integrate the information literacy competencies into the learning outcomes of the disciplines (ACRL Model Statement of Objectives Task Force, 2001; Kasowitz-Scheer & Pasqualoni, 2002; Rockman, 2003).

The information literacy standards included a section on assessing the information literacy program. The standards advocated that the “assessment program should reach all students, pinpoint areas for further program development, and consolidate learning goals already achieved” (ACRL Standards Committee, 2000, § 19). The standards recommended that librarians promote the impact of the information literacy program to the stakeholders at their institutions; in particular, how “information literacy contributes to producing educated students and citizens” (p. 7).

The Institute for Information Literacy of the Association of College and Research Libraries (2003) studied numerous information literacy models that were developed on our college campuses. This study identified the characteristics of information literacy

programs that illustrate best practices. These characteristics were published as a guideline “to help those who are interested in developing, assessing, and improving information literacy programs” (p. 544). This guideline has been versatile in that it can be used in various ways. First, it provided librarians with best practices that can be used to design, implement, and assess information literacy programs. Second, this guideline served as a “framework within which to categorize the details of a given program and to analyze how different program elements contribute to attaining excellence in information literacy programming” (p. 544). Third, this guideline was used as a basis for “benchmarking program status, improvement, and long-term development” (p. 544).

In 2001, the National Forum on Information Literacy, the Association of College and Research Libraries, the Commission on Higher Education of the Middle States Association of Colleges and Schools, and the Western Accreditation Commission for Senior Colleges and Universities commissioned a follow up study to the 1996 study of information literacy programs at higher education institutions (Sonntag, 2001). The purpose of the study was to “gather reliable data to support information program development, compare information literacy experiences across various types of institutions, and document success in establishing information literacy across the curriculum” (§ 6). The results indicated that the respondents were well-versed in the information literacy competencies and that the standards had been “widely accepted by higher education institutions of all types” (§ 7). Furthermore, the results indicated that librarians were dissatisfied with the level of implementation thus far attained.

Implementation of a formal information literacy program was another area identified as needing improvement as illustrated by the small number of respondents (80 out of 664) who indicated that their institutions have implemented such a program.

Collaborative Relationships

Raspa and Ward (1999) envisioned that collaboration was the bond of belonging and that inherent in that bonding was the act of listening to each other. They believed that listening required “hearing the other completely, waiting before speaking, recreating in one’s mind what was just said, and making sure it was understood” (pp. 1-2). Changes brought about by technology have required librarians to actively seek new ways to collaborate with faculty in the learning environment. Librarians must reach outside the library and think outside the box to build these new relationships in order to become catalysts in “overcoming roadblocks to information” (Evans, 2001, ¶ 6). Gross and Kientz (1999) asserted that collaboration was meaningful because it resulted in increased learning and achievement and that “building partnerships for learning places student learning at the core of the learning community” (¶ 6). Furthermore, collaborative relationships between librarians and faculty have been mutually beneficial because both the goals of the librarians and the goals of faculty have been achieved via the partnerships. Students benefited because the collaboration enhanced the students’ abilities to locate and critically evaluate information (Cawthorne, 2003).

Raspa and Ward identified five fundamental qualities required for successful collaboration. These qualities were (a) passion: librarians should only take on projects whose requirements matched their abilities and interests; (b) persistence: librarians should seize opportunities to establish collaborative relationships; (c) playfulness: librarians must suspend what they already know about their collaborators in order to be open to new possibilities; (d) project: librarians must be willing to take on big projects; and (e) promotion: librarians must be willing to openly discuss with passion their projects in the learning community. The authors suggested that successful collaboration was likely to occur if all five of the fundamental qualities were in place. Raspa and Ward determined that there were three stages in the growth of collaboration: Phase I (collegial) was the stage in which collaborators worked together within very narrow parameters dictated by location or organization; Phase II (interpersonal) was the stage in which the collaborators began to explore the undertaking of small projects and interdisciplinary interests; and Phase II (syncretic) was the stage in which the boundaries between disciplines began to blur and true collaboration occurred.

Networking was another type of relationship in which librarians have been involved (Jeffries, 1999). Networking has been considered to be an informal method of connecting with the learning communities and has provided librarians with a means to influence education via their role as agents for “educational transformation” (p. 114). Jeffries reported on the role of librarians as a networking agent based on the results obtained from two surveys: one survey focused on librarians’ experiences in working in

partnerships with faculty; the other survey focused on faculty's "perceptions or librarian-faculty collaboration and explored their preferences about the nature of those collaborative efforts" (p. 115). Although the number of responses to the surveys were small, some suggestions emerged that have helped librarians understand how to best approach, facilitate, and cultivate collaborations with faculty. Jeffries emphasized that librarians who have implemented these suggestions eventually build collaborative relationships with faculty that expand beyond the parameters of the traditional collaboration on collection development and library instruction.

Ducas and Michaud-Oystryk Study on the Faculty/Librarian Partnership

During the spring of 2000, Ducas and Michaud-Oystryk (2003) conducted a study at the University of Manitoba to explore the types of interactions that occur between academic librarians and faculty, the impact of the current role of academic librarians, and the future role of academic librarians. In particular, there were five areas investigated in this study: teaching/instruction, information services, information technology, research, and collections. This research was a follow-up study to their 1985 study of faculty perceptions of librarians at the University of Manitoba.

Ducas and Michaud-Oystryk designed a survey which asked the respondents to indicate the following:

1. whether they had interacted with librarians in the five areas of the investigation (if they had not interacted, what were their reasons; if they had, what was the type of interaction);

2. whether the interaction had an impact on their work or their students' performance (if yes, the type of impact; if not, why not);
3. other ways librarians could contribute;
4. the importance of the librarians' role in the university. (p. 87)

The researchers determined that the questions would be closed-ended with the choices being the most likely ones respondents would select. To allow for individual comments, the researchers added another category to the survey. The participants were grouped into one of three faculty groups: humanities and social sciences, health sciences, and pure and applied sciences.

Chi-square tests were used to analyze the data and R statistical software was utilized for the computation of the results. In addition, a Bonferroni-like adjustment was applied to the p-values for follow-up questions. The Chi-square test made the assumption that the subjects were a random sample; therefore, results were representative only of the participants from the University of Manitoba.

The 1985 study results indicated “a low acceptance of librarians as full-fledged academic colleagues” (Ducas & Michaud-Oysttryk, p. 72). The 2000 study demonstrated that in the intervening 15 years there had been a dynamic change in faculty attitudes and expectations of librarians. The results emphatically demonstrated that “when faculty interact with librarians, librarians have a very positive and considerable impact on both faculty and students. In addition, the responses indicate that faculty would be more receptive to collaborating with librarians at a higher level of interaction than currently

experienced. This view is reinforced by the finding that relatively few faculty cited insufficient ability or lack of experience as reasons for not interacting with librarians” (p. 72).

Two concerns emerged from the 2000 study. The first concern centered on the large number of faculty who were still oblivious to the capabilities of the librarians. Ducas and Michaud-Oystryk recommended that librarians should endeavor to build good relationships with faculty; good relationships foster an understanding of the librarians’ skills and abilities. As Kotter stated “if good relations are consistently cultivated, many of the problems with collaboration will disappear; good friends are less likely to fail at collaboration than total strangers” (as cited in Ducas & Michaud-Oystryk, 2003, p. 73).

The second concern that emerged from the 2000 study centered on the tendency of faculty in the pure and applied sciences to be less involved in interacting with librarians; what interaction did occur between librarians and these faculty tended to be at a lower level. Ducas and Michaud-Oystryk recommended that librarians working with this field “should investigate the faculty’s attitudes further and determine whether it would be beneficial to make greater efforts to engage the scientists and how they can best promote their expertise to them” (p. 73).

The 2000 study showed that established relationships had provided an excellent basis for ongoing collaboration with faculty and that the faculty had endorsed a higher level of interaction. Furthermore, the researchers observed that “these ratings and the expanded roles that faculty would like librarians to undertake reflect the high

expectations most faculty have of librarians and the integral role they see librarians playing” (Ducas & Michaud-Ostryk, p. 73) in the learning process.

Outcomes Assessment

In the past, libraries had a tendency to view data collection from three very distinctive perspectives: “the user in the life of the library, the user and the library in the life of the institution, and the library and the institution in the life of the use” (Dugan & Hernon, 2002, ¶ 48). The focus of assessment in libraries has now shifted from measuring inputs (e.g., number of items in the collections, the number of staff, amount of funding allocated for the library, and size of the facility) to measuring outcomes (e.g., what our students have learned as a direct result of contact with the library’s services and resources) (Blixrud, 2000; Dugan, 2002; Smith, 2000). This change in focus resulted from the increased demand for accountability that emerged during the 1980s. As the ACRL Task Force on Academic Library Outcomes Assessment reported in 1998, the forces for changed caused:

1. a restructuring of the criteria of the regional accrediting agencies to emphasize assessment,
2. the interest of state legislatures and federal agencies to require accountability of the institutions that they fund; and
3. the desire of the institutions to market their product as “high quality” to a (then) shrinking population of college-bound students. (¶ 1)

Smith (2000) recommended that librarians collaborate with faculty, other staff, and administrators to develop a shared model for developing and measuring learning outcomes and using the results of this measurement to improve the quality of learning. Smith advocated that librarians “need to measure the ways in which the library is contributing to the learning that the University values” (§ 12). Smith additionally recommended that librarians develop learning materials for academic programs for integration into the curriculum. Smith urged librarians to take the initiative to determine “what the library has to offer that will help the department achieve greater success in achieving their learning outcomes” (§ 19).

Services

The rapid increase in information technology implemented in our institutions has fostered a change in the way library services are provided to our community of users. The Internet has provided the vehicle by which the resources and services have been delivered. Since our users no longer have to be physically present in the library, academic librarians have an opportunity to “distinguish their services through friendly, helpful, and knowledgeable advice and the best technological resources available” (Simmonds, 2001, § 5). An important element in the delivery of quality library services was the incorporation of users’ needs and expectations into library programs. Renaud (1997) added that libraries must be guided by “customer needs rather than internal preferences” (§ 27).

The ACRL's *Standards for Libraries in Higher Education* recommended that services should support the institution's mission and goals (2003). Other recommendations included the provision of competent and prompt assistance for its users, hours of operation that were convenient and useful for the users, and reference and special assistance available during peak usage.

Staffing

In the changing learning environments in our higher education institutions, the role of academic librarians has shifted focus to a role as an information professional (Rice-Lively & Racine, 1997). In applying Senge's learning organization theories, Renaud (1997) indicated that librarians "need to reach out beyond their own profession and literature to understand the broader trends affecting their campuses, and to let go of old and comfortable roles" (p. 88). The evolving role of librarians as information professionals has required library administrators to hire qualified professionals who must have the following skills:

1. be good communicators—interpreters and listeners—who are intuitive and sensitive enough to perceive nuances (cues) from clients in order to ascertain specific information needs;
2. use good judgment to determine what kind of information and how much information each client needs; and
3. either serve as or construct a "bridge" linking the information and the user (Rice-Lively, 1997, ¶ 42).

McCandless (2000) stressed the importance of hiring the right person for the position. McCandless identified the desired attributes of service-oriented staff as persons who have “intellectual curiosity, a willingness to learn, analytical skills, affinity for change to the point of devising change for change’s sake, an abhorrence for the routine, the ability to question the status quo and to see different sides of an issue” (p. 150). Libraries can no longer afford to hire staff who can only function in a structured environment and who do not heed their users’ input. McCandless recommended that libraries must have personnel who embrace the service-oriented mission and who can readily adapt to the demands of change.

The User-Friendly Library: Facilities and Signage

Kent and Myrick (2003) of the Project for Public Spaces, a non-profit organization that promotes great public spaces in designing public buildings, advocated that librarians should pay attention to good public spaces because “the stature of libraries will depend on the very fact that they are physical places that are centrally located” (p. 72). Library buildings should be designed around the library’s “increasing role as a public gathering place in both interior and exterior spaces” (p. 72). In a college-wide study conducted at San Diego State University, students ranked the library as the “most important campus resource” (Cawthorne, 2003, p. 668).

Kent and Myrick (2003) proposed that a library should be a welcoming, attractive, and comfortable place centrally located for its community of users. Kent and Myrick

described the four qualities of great public spaces as: (a) having easy access for its users and links with its environment, (b) providing comfortable surroundings, (c) accommodating of various services and events, and (c) conducive to social interaction for the users of the spaces. They stressed that library administrators must not think of the building first in the initial design stage; instead library administrators must start with the intended uses of the facility. As Van Slyck indicated, the building communicates “a library’s philosophy of service more clearly than words could ever do” (2001, p. 519). The ultimate goal of a great public space should be to create a space where the community of users wants to be; the design of the building will help the community of users understand that “a library is not just a research center, but a place for community” (Kent & Myrick, p. 76). Kent and Myrick stated: “By designing your physical space so that the library is part of a larger public space, you don’t take away *from* the library; you make it more than *just* a library” (p. 76).

Libraries as physical spaces are needed to: (a) provide housing for print and non-print collections; (b) provide space for users to conduct research, read, view and listen to audio-visual materials, and interact with other users and staff; (c) provide space for electronic access to resources along with the ability to receive assistance from staff; and, (d) provide space for library instruction (Gorman, 2000). Indeed, the same principles that apply to designing new libraries can and should be applied to remodeling or expanding existing libraries (Kent & Myrick, 2003; Van Slyck, 2001). Buildings should be designed

to allow flexibility for future growth of the collections, the addition of new services and uses, and integration of new technologies (Gorman).

User-friendly was a concept that consistently appeared in the library literature. Bosman and Rusinek defined a user-friendly library as one which “anticipates and reacts to users’ needs for easy and convenient access to the library’s collections, resources, and services. Ideally, there are no physical, technological, or fiscal barriers between the patron and the information” (1997, p. 72). Rohlf (1989) espoused that the first principle of library design was that the facility should be user friendly “with services located for user convenience and staff efficiency” (p. 304); additionally, the library planners must endeavor to balance functionality with design. A committee at the Northwest Campus of Indiana University Library identified the ideal components of a user-friendly library as:

1. an accessible, well-lit building,
2. a simple floor plan and stack arrangement,
3. easily identifiable service points,
4. clear, easily understandable directional, informational, and instructional signs (including floor plans),
5. friendly, knowledgeable staff,
6. comfortable, ergonomically designed work/study areas, and
7. adaptive technologies for users with disabilities. (as cited in Bosman and Rusinek, p. 72)

Perhaps, Gorman (2000) uttered the best quotation concerning the design of library buildings:

A library building should “embody enduring values—service, stewardship, [and] the love of learning...It should be a place that inspires respect and encourages the pursuit of truth...A library building should also be a good place in which to work, because harmony in the workplace generates joy in work, and joy in work leads to productive and effective service to society.” (pp. 56-57)

Bosman and Rusinek Study on Library Signage

Bosman and Rusinek (1997) examined the “effectiveness of signage to instruct users, reduce difficulties and fears, ameliorate negative experiences, and contribute to a user-friendly library environment” (p. 71) in a user survey conducted at the Northwest Campus of Indiana University. Survey results indicated that (a) handwritten notes should be eliminated; (b) users preferred large, brightly colored signs; and (c) the addition of a library map or floor directory was crucial to help users navigate the library spaces. After the suggested changes from the user survey were implemented, library staff conducted a follow-up survey to determine if the improvements were effective. The follow-up survey revealed an overall increase in the ratings of the new signs. The follow-up survey “revealed improvement among specific classes in locating the three most difficult signs identified in the preliminary survey, government documents, archives, and bound periodicals” (p. 76). Bosman and Rusinek concluded that “Signage, as a contributor to a user-friendly environment, is beneficial to both library patrons and staff. Good

signs...can help users move throughout buildings more efficiently and accurately and may reduce questions at service points” (p. 81).

Kuh and Gonyea Study on Student Experiences with Academic Libraries

Kuh and Gonyea (2003) conducted a study on the role of academic libraries in promoting student engagement in learning by analyzing data collected between the years 1984 and 2002 from 300,000 student responses to the College Student Experiences Questionnaire (CSEQ). The purpose of this study was to “discover the unique contributions of library experiences” to student learning (p. 258). The study attempted to answer the following questions:

1. Has student use of various library resources changed between 1984 and 2002? That is, given the availability of information via the Web and other sources, are students using the library more or less for certain reasons (for studying, for finding information)?
2. Is frequent use of the library associated with greater gains in information literacy? What does the library contribute to other desired outcomes of the college?
3. Finally, how does student use of library resources affect their engagement with effective educational practices? That is, are students who frequent the library more likely to report increased contact with faculty members inside and outside the classroom? Are they more likely to talk with peers about substantive topics such as social, political, and economic issues. (pp. 258-259)

The researchers utilized the data from the College Student Experiences Questionnaire (CSEQ) because this instrument “assesses the quality of effort students devote to educationally purposeful activities” (p. 259). Kuh and Gonyea indicated that

quality of effort is “the single best predictor of what students gain from college; thus, this measure also can be used to estimate the effectiveness of an institution or its component organizations (such as the library) in promoting student learning” (p. 259).

The 4th edition of CSEQ included a revision of the library experience scale in addition to a computer and information technology scale; the latter scale was not part of previous editions of the CSEQ. There were 10 items in the CSEQ that measured student perceptions of “the extent to which their institution’s environment emphasizes important conditions for learning and personal development, including the importance of information literacy” (p. 259). Of these 10 items,:

1. 3 questions were designed to gauge student opinions about the quality of relationships with faculty members, administrative personnel, and other students on campus
2. 2 questions were designed to measure student satisfaction
3. the remaining questions asked students to estimate the extent to which they have gained or made progress since starting college in twenty-five areas that represent desired outcomes of higher education. (p. 259)

Two major trends emerged from the data analysis of the years 1984-2002. First, larger numbers of students reported using indexes and databases to locate information. Second, students increasingly access information and library resources from other locations outside the walls of the library. A minor trend that emerged from the data analysis was “a slight increase in the number of students asking a librarian for help during the 1980s and 1990s” (p. 260). One disadvantage of using this data was that there

was no way of measuring whether the nature of the students' requests for assistance changed during the years included in this study.

Kuh and Gonyea concluded that:

1. library experiences of undergraduate students positively relate to select educationally purposeful activities, such as using computing and information technology
2. students who report that they use the library frequently have a tendency toward exhibiting a studious work ethic and engage in academically challenging tasks that require higher-order thinking
3. the library appears to be a positive learning environment for all students, especially members of historically underrepresented groups
4. library use does not seem to contribute directly to gains in information literacy and other desirable outcomes
5. it takes a whole campus to produce an information-literate graduate.
(pp. 269-270)

Kuh and Gonyea made the following recommendations for further investigation:

1. determine the kinds of student interactions with librarians beyond those represented on the CSEQ that effectively promote learning or affect other aspects of the college experience
2. determine which approaches are most effective in teaching information literacy
3. compare the information literacy levels of students at institutions that require library assignments as part of one or more courses with those that do not
4. replicate previous student persistence studies using advanced statistical methods that control for student ability or institutional selectivity
5. study libraries at high-performing institutions to discover what they do well.
(p. 282)

The Learning-Centered Movement in Higher Education

Historical Context

A review of the literature revealed that the learning-centered movement in higher education has many names; in addition to the term *learning-centered movement*, the researcher encountered: the Learning Revolution, the Learning Age, and the learning paradigm. For the purposes of this literature review, the terms utilized by the authors were used.

The League for Innovation in the Community College has been at the heart of the learning-centered movement. Terry O'Banion retired President and CEO of the League for Innovation in the Community College, has spearheaded this movement. In an article entitled "An Inventory for Learning-Centered Colleges," O'Banion (2000) related that the movement was part of the Learning Revolution that emerged during the last decade of the 20th century.

The Learning Revolution had its roots in the failure of education reforms set in motion by the publication of *A Nation at Risk* in 1983. The first wave of reform consisted of sporadic attempts to fix the existing system; however, these early attempts at reform did little in the way of increasing student learning (O'Banion, 1997a). Other national reports, such as *To Reclaim a Legacy* published in 1984 and *Time for Results* issued by the National Governors' Task Force on College Quality in 1986, called for a shift "to an emphasis on student performance and learning as measures of institutional effectiveness" (O'Banion, 1997a, p. 105). In 1992, Drucker predicted that:

...in the next fifty years, schools and universities will change more and more drastically than they have since they assumed their present form 300 years ago when they organized themselves around the printed book. (p. 97)

In 1993, the Wingspread Group on Higher Education released *An American Imperative* which essentially embodied the issues for the second reform (O'Banion, 1997a). The report advocated a "redesign of our learning systems to align our entire educational enterprise with the personal, civic, and work place needs of the 21st century" (Wingspread Group on Higher Education, 1993, p. 19). The report emphasized that learning should be placed at the heart of the academic institution; this would entail "overhauling the conceptual, procedural, curricular, and other architecture of postsecondary education" (p. 14). Flynn added that the Wingspread Group on Higher Education "offered a concise statement on the implications of change in academia and what would be the impact of that change" (2003, ¶ 4).

Spurred into action by the failure of the initial reform initiatives, visionaries in the higher education arena sprang into action (O'Banion, 1997b). O'Banion stated: "Armed with new insights from brain-based research, Continuous Quality Improvement processes, and new developments in technology, a second wave of educational reform emerged in the early 1990s preparing the way for the most profound change in education since the invention of the book" (p. xiv). These initiatives placed "learning as the central value" (p. xiv) and focus of learning organizations.

In 1994 and 1995, *Time* and *Business Week* featured stories about the Learning Revolution (O'Banion, 1999a). In 1996, the first national conference on "The New

Learning Paradigm,’ sponsored by eleven national organizations, was held in San Diego” (2000, p. 18). The National Association of State Universities and Land-Grant Colleges along with financial assistance from the Kellogg Foundation issued a special report in 1997 entitled *Returning to Our Roots: the Student Experience* which advocated creating newly responsive institutions by tenaciously following three broad ideals:

1. Our institutions must become genuine learning centers, supporting and inspiring faculty, staff, and learners of all kinds.
2. Our learning communities will be student centered, committed to excellence in teaching and to meeting the legitimate needs of learners, wherever they are, whatever they need, whenever they need it.
3. Our learning communities should emphasize the importance of a healthy learning environment that provides students, faculty, and staff with the facilities, support and resources they need to make this vision a reality. (pp. 1-2)

The American Council on Education and the American Association of Community Colleges, in collaboration, published *A Learning College for the 21st Century* written by Terry O’Banion (O’Banion, 1997b). As the nation approached the end of the 20th century, the time was ripe for rapid change in higher education to occur as the speed of the Learning Revolution gained more impetus.

The Learning College

Background

O’Banion’s book entitled *A Learning College for the 21st Century*, published in 1997, was intended to “provide a framework for the reform movements of the past

decade and the emerging focus on learning” (p. xiv). In this book, O’Banion related the background of the learning-centered movement and provided early models to guide community colleges engaged in the transformation to a more learning-centered institution.

O’Banion reported that the limitations of higher education are “time-bound, place-bound, bureaucracy-bound, and role-bound (Flynn, 2003, ¶ 5). O’Banion analyzed the report of the Wingspread Group on Higher Education and applied it to the barriers the limitations imposed on creating learning-centered institutions. Flynn reported that O’Banion “identified the basic principles that undergird the concept of the learning college, and articulated the primary issues and challenges colleges would encounter when they decided to become more learning-centered” (¶ 5).

Key Principles of a Learning College

The learning college is founded on six key principles (O’Banion, 1997a):

1. The learning college creates substantive change in individual learners. . . Learning kindles new ways of seeing, thinking, and doing that lead to changed behavior. . . the institutional participants engaged in conversation about learning may encounter new ways of seeing, thinking, and doing—leading to changes in their behavior. . . In the learning college, substantive change in individual learners occurs in administrators, faculty, support staff, and trustees, as well as students. (pp.15-16)

2. The learning college engages learners in the learning process as full partners, assuming primary responsibility for their own choices. . . A personal profile will be constructed by the learner in consultation with an expert assessor to illustrate what this learner knows, wants to know, and needs to know. . . A personal learning plan will be constructed from this personal profile, and the learner will negotiate a contract that outlines responsibilities of both the learner and the learning college. . . As part of the contract, the learner will be responsible for selecting from among the learning options provided by the learning college. (p. 16)
3. The learning college creates and offers as many options for learning as possible. In the learning college there are many options for the learner in initial engagement and in continuing educational activities—options regarding time, place, structure, staff support, and methods of delivery. (p. 17)
4. The learning college assists learners to form and participate in collaborative learning activities. In the learning college, the university ideal of a “community of scholars” is transformed into a “community of learners.” . . the focus on creating communities among participants in the learning process—including not just students but also faculty, administrators, and support staff—on creating student cohorts, and on developing social structures that support individual learning is a requirement of a learning college. (p. 18)
5. The learning college defines the roles of learning facilitators by the needs of the learners.(p. 19)
6. The learning college and its learning facilitators succeed only when improved and expanded learning can be documented for its learners. (p. 20)

In an article entitled “Ideal Characteristics & Principles of the Learning College” (n.d.), a seventh principle was added:

7. All learning college employees identify with their role in supporting learning. (p. 8)

Harvey-Smith (2003) proposed the addition of another learning principle to serve as the basis for a framework for implementing the key principles of a learning college. Harvey-

Smith was unaware of the existence of an earlier seventh learning college principle so she called this principle the seventh learning college principle:

7. Create and nurture an organizational culture that is both open and responsive to change and learning. By creating and nurturing an organizational culture that is both open and responsive to change and learning, an environment is formed to provide the pivotal foundation that supports the transformation of all learners within the culture. (p. 1)

Developing a Learning College

O'Banion (2000) identified benchmark activities related to change to use for colleges who aspire to become more learning-centered:

1. revise mission statements: learning must be explicit in the mission statement;
2. involve all stakeholders: involving all stakeholders helps to develop the shared responsibility for student learning;
3. select faculty and staff: all new personnel should be hired using criteria that emphasize learning;
4. train faculty and staff: training will be needed in the processes of change;
5. hold conversations about learning: stakeholders must engage in a series of conversations about the kinds of learning they value and the kinds of learning they will provide their students;
6. identify and agree on learning outcomes: stakeholders must identify and agree on learning outcomes;
7. assess and document learning outcomes: stakeholders must develop a plan to assess and document the achievement of the outcomes;
8. redefine faculty and staff roles: roles of staff must be redesigned to meet the needs of the learning in a culture that places learning first;

9. provide more options: colleges must provide for different learning styles of the students;
10. create opportunities for collaboration: learning-centered colleges must model collaborative approaches to creating learning options for students;
11. orient students to new options and responsibilities: special attention must be given to orienting student to the new learning options and their responsibility for their learning;
12. apply information technology: information technology is a valuable tool for creating more expanded and improved learning for students;
13. reallocate resources: overhauling the traditional architecture means making substantive changes in existing programs and practice in the way existing personnel are used;
14. create a climate for learning: leadership must work hard to create an institutional culture that supports learning as a major value and priority of an increasing number of stakeholders. (pp. 18-23)

Robles Study: Building Learning Colleges

On November 20, 1999, Dr. Harriett J. Robles, Dean of Instruction & Matriculation at West Valley College in Saratoga, California delivered a paper based on her study of building learning colleges at the Community College League of California Conference in Burlingame, California (Robles, 1999b). The purpose of the study was to determine how prepared faculty, staff, and administrators were to achieve the goal of becoming learning-centered institutions.

Research Design

Robles (1999b) decided to review the mission statements and staff development plans for 106 California community colleges, which had stated that they were in the process of becoming learning-centered. Of those 106 California community colleges, Robles chose six for a further qualitative study in which 40 administrators, faculty, and staff were interviewed. The interviews Robles conducted included the following questions:

1. How has the college defined the concept or goal of a learning college?
2. What activities has the college undertaken to achieve this goal?
3. What are the skills faculty and staff need in order to achieve this goal?
4. What activities have been provided to specifically prepare faculty, staff, and administrators to be members of a learning college? (p. 3)

Results

Robles (1999b) presented the results of the study within the framework of Senge's (1990) five disciplines in a learning organization—personal mastery, mental models, shared vision, team learning, and systems thinking. The results demonstrated that:

1. to a high degree, colleges concur that their principal goal is student success in the form of student learning [shared vision]
2. despite skepticism, most community colleges appear to be shifting from the instructional to the learning paradigm [mental model]
3. community colleges are excellent incubators for personal mastery

4. by virtue of shared governance and a trend toward interdisciplinary, community colleges are well positioned to develop learning organization skills [team learning]
5. lack of mechanisms to provide reinforcing feedback is the weakest link for colleges attempting to become learning-centered [systems thinking] (pp. 9-14)

Recommendations for Becoming a Learning-Centered College

After Robles completed the study, she scrutinized the findings and created a list of recommendations for “colleges who have committed to or want to commit to becoming learning-centered institutions” (1999a, p. 158). The recommendations were as follows:

1. define terms: understanding terms associated with the learning-centered concept and how they fit in with the goals of the institution
2. know the cultures: an understanding of the different types of cultures— institutional, disciplines, and people—is crucial to the learning process; additional recommendations: (a) invite supporters of new ideas to present ideas in panel discussions, (b) identify and resolve conflicts roles of faculty, staff and administrators in the learning process, and (c) avoid the either-or dilemma
3. make the learning needs of the organization as important and as explicit as the learning needs of students: paying attention to the learning needs of the organization is essential to the success of the organization
4. make professional development an integral part of institutional planning: organizational skills must be identified and employees must be required to obtain these skills
5. specify organizational skills in job announcements: provides expectations of the organization to prospective employees

6. support professional development in the following aspects: (a) integrating professional development into planning process, (b) ensure that coordinator has sufficient time/training to plan professional development programs, (c) reexamine the basic assumptions about academic year, and (d) determine needs and secure adequate funding to meet the needs of the professional development programs
7. develop feedback mechanisms based on continuous assessment and evaluation; additional recommendations: (a) use qualitative and quantitative measurements to assess and evaluate individual and organizational learning, (b) provide time and incentive for reflection
8. think of faculty, staff, and administrators as learners: consider individual and organizational learning needs when planning professional development programs (pp. 158-164)

Recommendations for Further Study

Robles (1999a) recommended the following areas for further research:

1. This study used mission or vision statements as a means of identifying colleges that had formally committed to being learning-centered. The study did not examine the process by which these mission statements were created, nor did it measure the impact of these mission statements on the day-to-day operations of the colleges. Since they are the most public statements of a college's values, an in-depth study of their evolution, nature, and impact is warranted.
2. This study did not identify model programs of professional development. Further research on best practices in professional development would be useful.
3. Another area for further research is a study of the contributions that could be made from the field of human resource development in relation to higher education.
4. Given the emphasis on the creation of values and mission statements as part of the planning process in community colleges, it would be interesting and perhaps useful to apply Dr. Roseann Stevenson's thesis on organizational values to higher education. Dr. Stevenson developed a taxonomy of values gleaned from mission statements of companies.

5. All colleges in this study indicated frustration with weak or non-existent feedback mechanisms, yet such mechanisms are vital to organizational learning. It would be very useful for a study to identify current best practices and/or to propose models.
6. A recurrent theme in the interviews conducted for this study was the need to become more interdisciplinary in terms of both curriculum and institutional problem solving. It would be valuable to have a study examine the nature and scope of interdisciplinary activities in community colleges.
7. During the course of this study, a pattern emerged. Many of those community college staff most inclined to systems thinking turned out to have backgrounds in English and the social sciences. So marked was this phenomenon that it raised the question as to whether a discipline could be considered as a factor in assembling planning teams.
8. It has been speculated that the learning revolution is more than a passing phase in higher educational reform. A longitudinal study to determine the impact of this phenomenon would be informative. (pp. 165-168)

The Learning College Project

As the learning revolution gained momentum in higher education, it was time to develop a model learning college. In 1999, the League for Innovation in the Community College received a grant from an anonymous donor to “create ten Learning Colleges to serve as models for other educational institutions” (O’Banion, 2000, p. 18). The project was designed to be a five year project; however, the anonymous donor only provided funding for the first three years of the project (January 1, 2000 – December 31, 2002).

As noted in Chapter 1, of the 94 applications received, there were 12 colleges selected in North America to participate in this project. These 12 colleges were named the Vanguard Learning Colleges and challenged to develop and strengthen “policies,

programs, and practices across their institutions with a focus on the five project objectives: organizational culture, staff recruitment and development, technology, learning outcomes, and underprepared students” (“Learning College Project: Vanguard Colleges,” 2003, ¶ 1).

Evaluation of the Learning College Project

The League for Innovation in the Community College hired Kay McClenney, Director of the Community College Survey of Student Engagement, to serve as the external evaluator of the Learning College Project. McClenney developed an evaluation process that involved collecting data in the early stage of the project and the later stage of the project. The data for the first evaluation was gathered during site visits to the Vanguard Learning Colleges between October 2000 and March 2001 (McClenney, 2001). The data for the second evaluation was gathered during site visits to the Vanguard Learning Colleges in the fall of 2002.

The first evaluation discovered that the Vanguard Learning Colleges had established high expectations for their participation in the project (McClenney, 2001, ¶ 16). From talking to staff at the Vanguard Learning Colleges, McClenney gleaned the following key observations:

1. The journey is long, the tasks are multiple, the challenges are conceptually and politically complex.
2. The commitment to learning is not always a visible priority.

3. Innovations and projects abound, but they sometimes lack unifying goals or principles.
4. Effective ways to scale up innovations that demonstrably support student learning are greatly needed.
5. The language of learning (a) is increasingly reflected in key institutional documents, (b) needs action to match walk with talk, (c) is not yet broadly and fully understood, and (d) produces resistance and resentment in some quarters.
6. There exists a continuing need for organizational teaching and learning—to gain common understanding and define common ground and then to develop new skill sets.
7. Learner-centered and learning-centered are still often used as though they were synonymous terms.
8. People foresee the need to consider significant changes in the roles of faculty and other professionals.
9. The most challenging task is also the most essential task: defining, assessing, and documenting student learning outcomes.
10. Companion to the assessment challenge is the work of developing a culture of evidence.
11. Project evaluation at the campus level needs further attention.
12. Project participation has reinforced college efforts to put learning first in related initiatives. (¶ 4-15)

McClenney determined that the colleges were high achievers; however, they still had a long journey ahead of them to become a learning college.

During the last few months of the three year project, the Vanguard Learning Colleges hosted a final site evaluation by the external evaluator and the League staff.

(McClenney, 2003a). During these visits, the evaluation team met with the college's president and the Vanguard project team. On each campus, the evaluation team saw a demonstration of the results from the project objectives, conducted an evidence of learning session, and held focus groups with campus stakeholders (McClenney, 2003a). Based on focus group results, documentation of achievement of project goals, and presentations, the evaluation team discerned the five most important indicators of the success of the journey. The team called these indicators "milestones" in keeping with the journey metaphor for the project:

1. The college as its own critic: The emphasis on the difference between looking good and being good was a common theme.
2. Assuming collective responsibility for student learning: The shared responsibility for student learning emerged in powerful ways.
3. Benchmarking best practices: The teams enthusiastically affirmed the power of benchmarking as a tool for spurring initiative and improvement.
4. Building a culture of evidence: These colleges collected more data than before, made more data-driven decisions, and demonstrated more commitment to a philosophy of continuous improvement.
5. Defining and assessing student learning: There were pointed discussions about the extent to which each college had moved forward on the work of defining and assessing student learning outcomes. The overall status of this work was categorized as Random Acts of Progress. (¶ 4-25)

Summary

The purpose of this chapter was to review the related literature and research on the role of libraries in student learning and the development of the learning college. The first part focused on the role of libraries in student learning. The first section focused on the history of the development of college libraries in America. The historical section demonstrated the link between external and internal forces and the development of the college libraries. The second section introduced accreditation standards and guidelines that were created to assure quality libraries. The third section focused on the key components that comprise a college library's programs and services (library instruction, information literacy, collaborative relationships, outcomes and assessment, services, staffing, and the user-friendly library). The fourth section discussed the Kuh and Gonyea study on the impact of the library on student engagement in learning.

The second part of this chapter concerned the development of the learning-centered movement in higher education. The first section looked at the historical context within which the movement emerged as a catalyst for change in our institutions of higher education. The second section focused on the transformation of the ideas behind the movement into the learning college concept, and the results of the Robles study on building a learning college. The second section focused on the application of the learning college concept into the Learning College Project. The final section was devoted to the findings of the two evaluations of the Learning College Project.

CHAPTER 3

METHODOLOGY

Introduction

Chapter 3 provides an overview of the methodology and procedures used to determine the extent to which the learning-centered concept has been implemented in the libraries of the 12 Vanguard Learning Colleges. This chapter reviews the statement of the problem and describes the research design and rationale, population, instrument development, data collection methods, research questions, and data analysis of the case study.

Statement of the Problem

The problem of this study was: (a) to determine the characteristics of a learning-centered library from the perspective of the libraries in the 12 Vanguard Learning Colleges, (b) to determine the extent to which the learning-centered concept had been implemented in the libraries of the 12 Vanguard Learning Colleges as it related to the objectives of the Learning College Project, and (c) to chronicle the journeys of the libraries to become more learning-centered.

Research Design and Rationale

The case study methodology was chosen because it best met the needs for data collection and analysis of the journeys of the libraries in the Vanguard Learning Colleges. Creswell (1998) listed five dimensions for comparing five research traditions in qualitative research. The dimensions of the case study tradition best fit the situation to be studied. The five dimensions of a case study were:

1. Focus: Developing an in-depth analysis of a single case or multiple cases
2. Discipline origin: Political science, sociology, evaluation, urban studies, and other social sciences
3. Data collection: Multiple sources—documents, archival records, interviews, observations, physical artifacts.
4. Data analysis: Description; themes; assertions
5. Narrative form: In-depth study of a “case” or “cases” (p. 65)

In addition, Merriam (1988) noted that “case study research, and in particular, qualitative case study, is an ideal design for understanding and interpreting observations of educational phenomena” (p. 2). Yin (1994) stated “case studies are the preferred strategy when . . . the focus is on a contemporary phenomenon within some real-life context” (p. 1).

Merriam (1998) influenced the researcher to select the semi-structured interview format for primary data collection because it allows flexibility during the interview session. Furthermore, the researcher chose the telephone as a means of conducting the

interviews because a “telephone interview provides the best source of information when the researcher does not have direct access to individuals” (Creswell, 1998, p. 124).

The researcher looked to Dillman (2000) for guidance in designing a method for pretesting the telephone interview questions. Dillman divided the pretesting process into four sequential stages:

1. Review by knowledgeable colleagues and analysts: In this stage, it is particularly important to get feedback from people with diverse expertise. The goal of this stage is to finalize the substantive content so that the construction process can be undertaken.
2. Interviews to evaluate cognitive and motivational qualities: In this stage, the focus is on clarifying the questions so that all interviewees interpret the questions in the same manner.
3. A small pilot study: In this stage, the process for collecting data for the main study is emulated on a smaller scale.
4. A final check: In this stage, the objective is to ask a few people who have had nothing to do with the development or revision of the questions to critique the questions. (pp. 140-147)

Instrument Development

The semi-structured telephone interview questions (See Appendix C) were open-ended in nature and were based upon the objectives of the Learning College Project. A panel of experts (See Appendix D) comprised of colleagues in the library community and social research community reviewed and confirmed the interview questions in April 2003. A library administrator at Valencia Community College piloted the instrument in a telephone interview with the research, and the questions were finalized in May 2003.

Feedback from the piloted interview session confirmed the adequacy of the questions and identified the questions in need of revision. The dissertation committee provided a final review of the interview questions prior to the proposal for dissertation; the committee recommended the inclusion of an additional question (What do you need to do to become more learning-centered?) in the final version of the interview questions.

Research Questions

The questions addressed through the semi-structured telephone interviews were as follows:

Research Question 1: What is a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges?

Research Question 2: By their own definition, how did the libraries in the Vanguard Learning Colleges become more learning-centered?

Research Question 3: What opportunities presented themselves to the libraries in the Vanguard Learning Colleges as they arose to the challenge to become more learning-centered?

Research Question 4: What challenges did the libraries in the Vanguard Learning Colleges encounter on their journeys to become more learning-centered?

Research Question 5: What were the salient differences in experiences in the journeys of the libraries in the Vanguard Learning Colleges to become more learning-centered?

Population

The population of this study was comprised of the library administrators, or their designees, of the 12 Vanguard Learning Colleges—Cascadia Community College, Community College of Baltimore County, Community College of Denver, Humber College, Kirkwood Community College, Lane Community College, Madison Area Technical College, Moraine Valley Community College, Palomar College, Richland College, Sinclair Community College, and Valencia Community College.

Data Collection

The researcher followed a modified version of Dillman's tailored design method for contacting subjects (2000). After permission was granted by the Office of Research of the University of Central Florida (See Appendix E), the researcher sent an introductory letter (See Appendix A) concerning the case study research to the library administrators of the Vanguard Learning Colleges. The letter requested the participation of each library administrator to provide a date and time that was convenient for a telephone interview. The second contact method selected by the researcher consisted of contacting the library administrators through email (See Appendix B). The third contact method selected by the researcher consisted of a follow-up telephone call to the library administrator. In most cases, the researcher was successful in scheduling telephone interviews with the library administrator or his/her designee after the third contact.

Almost all of the telephone interviews were conducted in July and August 2003. The last telephone interview was completed on October 17, 2003. The telephone interviews sessions ranged from 45 minutes to 2 hours with an average duration of 75 minutes. The telephone interview questions were sent to the library administrators prior to the scheduled interviews to allow them time to gather the data they wanted to include in the interviews. With the permission of the library administrators, the researcher taped the interviews and then transcribed them for use in the data analysis. As each interview was transcribed, the researcher reviewed it along with prior interview transcripts to determine recurring patterns, common themes, and unanticipated information. The transcribed interviews were sent to the library administrators for clarification of responses and for the inclusion of additional data relevant to the case study.

Other sources of data collected were archival in nature, such as library mission statements, policies, and strategic planning documents. These sources were obtained from the libraries' websites and/or the library administrators. Statistical data on the collections and staffing of the libraries were obtained from the 2003-2004 edition of the *American Library Directory*.

Data Analysis

The researcher utilized Creswell's data analysis spiral as the basis for analyzing the data collected for the case study. The researcher developed the categories for analysis

based on a review of the literature and from the data itself. The data was analyzed to answer the five research questions:

Research Question 1: What is a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges?

To answer this research question, data from the telephone interviews and pertinent archival data were analyzed using qualitative analysis strategies. The specific interview questions for this research question were: 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14 (See Appendix C for a list of the interview questions).

Research Question 2: By their own definition, how did the libraries in the Vanguard Learning Colleges become more learning-centered?

To answer this research question, data from the telephone interviews and pertinent archival data were analyzed using qualitative analysis strategies. The specific interview questions for this research question were: 1, 2, 5, 6, 7, 12, and 13.

Research Question 3: What opportunities presented themselves to the libraries in the Vanguard Learning Colleges as they arose to the challenge to become more learning-centered?

To answer this research question, data from the telephone interviews and pertinent archival data were analyzed using qualitative analysis strategies. The specific interview question for this research question was: 1.

Research Question 4: What challenges did the libraries in the Vanguard Learning Colleges encounter on their journeys to become more learning-centered?

To answer this research question, data from the telephone interviews and pertinent archival data were analyzed using qualitative analysis strategies. The specific interview question for this research question was: 1.

Research Question 5: What were the salient differences in experiences in the journeys of the libraries in the Vanguard Learning Colleges to become more learning-centered?

To answer this research question, data from the telephone interviews and pertinent archival data were analyzed using qualitative analysis strategies. The specific interview question for this research question was: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14..

The researcher created a matrix to summarize the results of the analysis of the research questions. The categories on the matrix related to the research questions; sub categories emerged from the data itself and the literature review. The matrix provided a graphical representation of the compiled analysis of the data from the libraries of the Vanguard Learning Colleges.

Summary

The research design, rationale, and methodology utilized for this case study have been presented in this chapter. The researcher developed semi-structured interview questions using Dillman's four stages of pretesting and collected primary data utilizing the telephone interview format.

Library administrators or their designees from the 12 Vanguard Learning Colleges were interviewed for this study. Archival data was collected from the libraries' web sites, library statistical sources, and the library administrators. Chapter 4 will consist of a narrative presentation of the data for each of the Vanguard Learning Colleges. Chapter 5 will consist of a summary of the findings and resulting recommendations.

CHAPTER 4

ANALYSIS OF THE DATA

Introduction

This study sought to determine the characteristics of a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges, to determine the extent to which the learning-centered concept had been implemented in the libraries of the 12 Vanguard Learning Colleges as it related to the objectives of the Learning College Project, and to chronicle the journeys as the libraries became more learning-centered.

Case study methodology was selected to collect and analyze data for this study. With the help of a panel of experts, the researcher developed telephone interview questions that were based on the objectives of the Learning College Project. Other data collected for analysis were archival in nature and included documents, such as library mission statements, library policies, library strategic planning documents, library survey instruments, and library assessment plans; and the statistical data reported in the 2003-2004 edition of the *American Library Directory*. Chapter 4 was organized to report the extent to which each individual library or multi-campus libraries supported the objectives of the Learning College Project and to chronicle their journeys to become more learning-centered. The level of support for the objectives of the Learning College Project was determined by the results from the interview questions and the evidence substantiated by archival data according to the following plan:

1. Organizational Culture: Each of the 12 colleges will cultivate an organizational culture where policies, programs, practices, and personnel support learning as the major priority. Since organizational culture was a large category, the researcher decided to focus on reporting on the best practices of a learning-centered library. Interview question 5 (See Appendix C for a list of the interview questions) and pertinent archival documents provided the data for reporting the best learning-centered practices.

2. Staff Recruitment and Development: Each of the 12 colleges will create or expand (a) recruitment and hiring programs to ensure that all staff and faculty were learning-centered and (b) professional development programs that prepare all staff and faculty to become more effective facilitators of learning. To determine the extent to which each library or multi-campus libraries supported this objective, the researcher analyzed the data collected from interview questions 6 and 7 and pertinent archival documents.

3. Technology: Each of the 12 colleges will use information technology primarily to improve and expand student learning. To determine the extent to which each library or multi-campus libraries supported this objective, the researcher analyzed the data collected from interview question 9 and pertinent archival documents.

4. Learning Outcomes: Each of the 12 colleges will agree on competencies for a core program of the college's choice, on strategies to improve learning outcomes, on assessment processes to measure the acquisition of the learning outcomes, and on means for documenting achievement of outcomes. To determine the extent to which each library

or multi-campus libraries supported this objective, the researcher analyzed the data collected from interview question 11 and pertinent archival documents.

5. Underprepared Students: Each of the 12 colleges will create or expand learning-centered programs and strategies to ensure the success of underprepared students. To determine the extent to which each library or multi-campus libraries supported this objective, the researcher analyzed the data collected from interview question 10 and pertinent archival documents.

6. Chronicle of the Journeys: To report the experiences each individual library or multi-campus libraries encountered as they made the transformation to become more learning-centered was determined by an analysis of the data collected from interview questions 1 and 2 and pertinent archival documents.

Library statistics for each college reported for each college included number of books in the collection, number of periodical subscriptions, total number of staff, and number of MLS degreed staff (see Appendix J for a compiled list of library statistics). Statistics were obtained from the 2003-2004 edition of *The American Library Directory*.

The Libraries in the Vanguard Learning Colleges

Cascadia Community College

The Setting

Located in Bothell, Washington, Cascadia Community College opened its doors in the fall of 2000 on a joint use campus shared with the University of Washington. The library, operated by the University of Washington Libraries, serves the students of both institutions. The joint use library has 47,000 books and 2234 periodical subscriptions in its collection; and a total staff of 35 of which 13 have MLS (Masters of Library Science) degrees. By virtue of the joint use contract with the University of Washington, the students have access to the University's six million volume collection.

For level of learning-centeredness achieved, the library administrator rated the library as seven on a scale of one to ten with one being lowest and ten being highest. In order to become more learning-centered, more expertise in the concept of a learning college needs to be developed among the library staff. The library administrator indicated that they needed to provide more training on the learning college for library staff so that they will become aware of the elements of a learning college in order to institutionalize them within the library.

Opportunities that the library administrator utilized to assist the library to become more learning-centered included: (a) the willingness of the College to engage with the library as a partner to provide resources and services to its students and (b) the willingness of the College to support library staff by including them in staff development

opportunities. The only challenge reported was the lack of access to informal communications due to not being housed in the same building with the College's faculty and staff. On the other hand, the library was well-connected to the formal communications of the College.

Best Learning-Centered Practices

The library was deliberately designed with a single point of service so that students did not have to determine which area of the library could provide assistance for their information needs. The idea behind this decision was to reduce the amount of frustration the students encountered when using the resources and services in the library. The single point of service was delivered from a desk, and it was the only desk the students saw. To make the single point of service even more effective, the decision was made to staff the desk with people with different levels of expertise, i.e., librarians work beside computer technology assistants to provide seamless services to students.

The library provided an information commons which consisted of 50 computer stations and the single point of service desk. Here the students had access to a wide array of resources—library databases, online library catalogs, productivity software, and curriculum software. Students can do whatever they needed to do for class assignments without having to go from place to place to complete assignments. As an added bonus, the library hired technology consultants to provide technical support to the students, which freed the librarians to spend more time devoted to helping students with their

research needs. These technology consultants were recruited from students enrolled in the computer technology programs.

Allowing students to eat and drink in the library was another example of a best learning-centered practice. The decision was based on the premise of making the library more welcoming to the students, as well as, supporting their busy lifestyles. Cynthia Fugate, Director, Campus Library & Media Center, stated, “If [the students] cannot think because they are hungry, then they are not effective” (personal communication, August 1, 2003).

These best learning-centered practices were selected because they were the ones that the students seemed to appreciate the most. In addition, these best practices contributed to the efficient use of student time.

Staff Recruitment and Development

The College conducted national searches for librarian positions. They utilized a selection committee comprised of faculty from both institutions and representatives from the library staff to make decisions on new hires. They sought to hire librarians who had subject expertise so that they can serve that subject area at both the community college and the university. They felt that this process was beneficial because the subject librarians span four to six years of higher education, from freshman year to the completion of the masters programs, thereby, providing for continuity in the development of the collection.

A unique feature to the hiring process was that every applicant for each position was offered an interview on campus. Prior to the interviews, the selection committee received a handout and a briefing as a reminder of the learning-centered interviewing process. The interview questions were written to assess “alternative pedagogies, technology, student centered learning, and outcomes based interdisciplinary curriculum” (Cascadia Community College Vanguard, 2002, ¶ 3). The selection committee required a teaching philosophy statement from each applicant in advance. In addition, the applicants were required to do a teaching presentation that incorporated technology and active learning in the classroom and focused on learning style instead of content. The College utilized the teaching philosophy statement and teaching presentation to determine the level of learning-centeredness that each applicant possessed.

To ensure that new librarians were learning-centered, the library administration has implemented a type of mentoring program. The mentoring program teamed new librarians with senior librarians. The senior librarians often accompanied the new librarians to faculty meetings or to individual planning sessions with faculty for creating assignments that utilized the library’s resources. For other library staff, the library administration created an awareness of the learning-centered concept and encouraged them to turn routine encounters with students into learning opportunities for students. For example, at the Reserve Desk, library staff demonstrated to students how to locate a reserve item by searching the library’s website to access the Ereserve (electronic reserves) section rather than simply pulling a reserve item off the shelf.

Library Support of Information Technology to Improve and Expand Student Learning

The library supported information technology to improve and expand student learning by providing access to software and the Internet and by providing technology-based instruction in their information literacy instruction classes. Another way that the library supported information technology to improve and expand student learning was by collaborating with the Student Learning Council, the curriculum committee, on integrating information literacy skills into the college's curriculum with the goal of working toward a total collegewide implementation of the information literacy program.

Assessment of the effectiveness of the information technology was identified as an area that needed improvement. The college periodically surveyed its students through its assessment plan; however, the assessment of this particular goal was not specifically addressed in the plan. The library staff piloted various assessment tools in the fall of 2003 in individual classes; however, the widespread implementation of an assessment has not yet been achieved.

Library Support of Learning Outcomes Adopted by the College

Cascadia Community College's learning outcomes were aligned with the information literacy goals of the library. According to the College's *Self Study for Consideration of Accreditation Candidacy 2002*, "information literacy is . . . reflected in each of the College-wide Learning Outcomes, which clearly indicate the essential synergy between information literacy skills and the companion abilities" (p. 2-20). The

librarians served on the learning outcomes teams and provided input into the discussions of specific learning objectives developed for these learning outcomes. Furthermore, the faculty-librarian teams were able to:

begin to identify ways in which information literacy can be integrated into and across the curriculum, targeting strategic points at which to provide intensive instruction, as well as embedding information literacy skills and concepts more broadly throughout a student's learning experience. (p. 2-19)

The College developed the learning outcomes around four core areas: (a) learn actively; (b) think critically, creatively, and reflectively; (c) communicate with clarity and originality; and (d) interact in diverse and complex environments (Cascadia Community College, 2004). The library supported these core areas in the following ways:

1. Learn actively: The library supported this core value through the provision of resources and services.
2. Think critically, creatively, and reflectively: This was an information literacy tool and was supported through resources, services, and library instruction.
3. Communicate with clarity and originality: In addition to providing a wide variety of formats to support oral and written communication, the library provided opportunities for students to do research topics for oral presentations, tape themselves presenting the topics, and review their presentations before presenting in class.
4. Interact in diverse and complex environments: The library provided multicultural library resources, literature, and film in support of this learning outcome.

Library Support of the Success of Underprepared Students

Underprepared students were primarily supported by the Open Learning Center which provided tutorial assistance with class assignments in writing and mathematics to students. The library did not directly interact with the Open Learning Center. The library staff collaborated with the Adult Basic Education and English as a Second Language (ESL) programs by providing information literacy instruction to their students. In addition, the library added an adult popular literature collection at a lower reading level for the underprepared student population. The library staff have not assessed the effectiveness of their support to underprepared students.

Community College of Baltimore County

The Setting

The Community College of Baltimore County has finally emerged as one college after enduring several years of growing pains from the transition of three independent colleges to one college (Dundalk Campus, Essex Campus, and Catonsville Campus). In 1995, the three community colleges were reorganized into one community college in an effort to reduce administrative duplication. The new system did not work very well due to inexperienced trustees and a lack of financial accountability. In 1997, the State Legislature and the Governor restructured the Board of Trustees and officially reestablished the three community colleges into one college. With the new board, the

Community College of Baltimore County has experienced stability for the first time in many years.

The Dundalk Campus Library opened in 1971; the Essex campus library, A. Newpher Library, opened in 1957; and the Catonsville Campus Library was opened in 1957. The combined campus libraries have a total of 227,975 books and 1,297 periodical subscriptions in the collection; and a total staff of 47.5 of which 11.5 have MLS degrees.

For level of learning-centeredness achieved, the library administrator rated the library as five on a scale of one to ten with one being lowest and ten being highest. This rating was attributed to the library being in a maintenance of effort situation for the past four years. During this time, the number of library staff were reduced through attrition; in some cases, the vacated positions were not replaced which necessitated an increased dependency upon adjunct faculty and temporary hourly staff. In order to become more learning-centered, the library staff needed to receive training on customer service and develop empathy regarding the obstacles students encounter when seeking assistance with their information needs. Additionally, the library needed adequate staffing because implementing information literacy and information technology are both time-consuming projects. The library staff needed to understand the various learning styles of the students and learn how to accommodate the variations in learning styles in the design and delivery of library services and instruction.

Opportunities that the library administrator utilized to assist the libraries to become more learning-centered included benefiting: (a) from informal recommendations

by students to other students and members of the community of the quality of resources and services that these libraries offered and (b) from the community's campaign to convince the State Legislature to enact legislation to merge the community colleges into one institution. The only reported challenge concerned the loss of long-established faculty-librarian relationships due to the merger. Faculty either retired, resigned, or transferred to one of the other campuses.

Best Learning-Centered Practices

The library staff developed a program called Term Paper Research Assistance Project (TRAP) in which students scheduled a 30-minute appointment with one of the librarians to receive individual assistance with a research assignment. The student was guaranteed 30 minutes of uninterrupted time with the librarian. The staff reported that the program has been immensely successful with their students.

The library staff collaborated with faculty to post their assignments on the library's webpage. Due to the collaboration that occurred between faculty and the librarians prior to students getting their assignments, much of the confusion concerning the identification and location of resources to be used for the assignments did not occur. This process reduced the amount of frustration the students experienced in the completion of their class assignments.

These best learning-centered practices were selected based on the overwhelming response the library staff received from faculty and students. These practices were

primarily service-based; the library administration equated service-based with learning-centered.

Staff Recruitment and Development

The College focused on developing a hiring plan for the selection of new staff. Of utmost importance, was designing a plan that identified applicants who had a learning-centered attitude and teaching philosophy. In the library, applicants for librarian positions were required to present a sample library instruction lesson and answer a sample reference question. Criteria were developed to assist in the determination of the quality of service that a potential employee would provide to the learning community.

The library administration was in the early stages of planning a staff development plan specifically designed to prepare staff to be more effective facilitators of learning. In the past, library staff have been participants in learning-centered activities offered by the College as a whole.

Library Support of Information Technology to Improve and Expand Student Learning

The library supported the information technology goal of the Learning College Project by: (a) upgrading the library computer labs and library instruction labs across the three campuses; (b) installing SmartClassrooms (technology-enhanced classrooms) on each of the three campuses; and (c) offering wireless access for PDA (personal digital assistants) for specific curricula, such as criminal justice.

The Catonsville Campus obtained a grant to allow the campus faculty to collaboratively develop a definition of information literacy. The grant addressed the confusion between information literacy and computer literacy held by faculty. It has been an obstacle for developing a college-wide plan for ensuring that the students were information literate. The Chancellor for Information Technology and Planning conducted an assessment on the use of information technology on the campuses; however, it was not specifically driven toward how it supports student learning.

Library Support of Learning Outcomes Adopted by the College

The Community College of Baltimore County recently completed developing its five year strategic learning plan. Under the section on learning support, the College has promised to “support library services, especially information literacy, as an integral part of the learning process” (“Learning First,” 2003, p. 197.). The library staff have been involved with collaborating with learning outcomes teams to redesign the curriculum to include information literacy learning outcomes.

Library Support of Underprepared Students

The library staff worked closely with faculty who teach student development courses in reading and writing to develop assignments. In addition, underprepared students took advantage of receiving research assistance through the TRAP program described in the best learning-centered practices section.

The effectiveness of the library support of underprepared students was assessed primarily from informal feedback from the faculty. Individual student comments were used to determine the effectiveness of the library support. Mary Landry, Director, Library & Media Services, stated, “students come back to say what a difference it makes not just in their academic assignments, but many of them when they are allowed to choose the topics will choose...things that are of real concern to them at that time. When they find out they can find information, it makes a difference in their lives. It really is valuable to them” (personal communication, August 4, 2003).

Community College of Denver

The Setting

The Community College of Denver shares the Auraria Campus in downtown Denver with a four-year college and a university—Metropolitan State College and the University of Colorado at Denver. The State Legislature created the Community College of Denver in 1967 and later created the Auraria Higher Education Center, the three institution joint use campus, by legislative mandate (Community College of Denver, 2003, ¶ 1).

Auraria Library opened in 1976. It has 622,000 books and 3,083 periodical subscriptions in its collection; and 25 staff members who have MLS degrees. Administratively, the library serves all three institutions with the community college

contributing about nine percent of the overall library budget. The mission, vision, and goals are driven predominantly by the university side of the partnership.

For level of learning-centeredness achieved, the library administrator rated the library as a seven on a scale of one to ten with one being lowest and ten being highest. In order to become more learning-centered, they needed to develop a systematic way of measuring outcomes, evaluating how well they were meeting the needs of the students, and determining what changes they need to make.

The challenges reported included: (a) lack of funding and (b) library staff buy-in to establishing a general use lab. Some library staff felt that this type of lab was not included in the library's mission.

Best Learning-Centered Practices

One of the best learning-centered practices of the Auraria Library was the establishment of a general use lab. Prior to that, students were sent out into the Denver cold to find a place to complete a term paper. The library administration remedied this situation by creating the general use lab for student and community use. For students with disabilities, the library developed a special use lab with adaptive technology, such as Jaws (software program for visually impaired students) and Braille printers.

Another learning-centered practice was the reorganization of the library instruction program. The program had been disjointed and chaotic so the library administrator appointed a senior reference librarian to coordinate the redesign of the

library instruction program. The library staff have just begun to evaluate the outcomes of the redesigned library instruction program.

To meet the demand for an outreach program, the library administrator hired a distance learning librarian. One of the things that the administration discovered was that there was a great deal of uncertainty about where to go for library services and assistance with research needs. To address this concern, the distance learning librarian communicated with instructors on outreach campuses to inform them of the resources and services available to them and their students.

Staff Recruitment and Development

Every new librarian applicant was required to make a presentation to the hiring committee regardless of type of librarian position. The presentation was on a topic that the hiring committee chose. The presentation was a big indicator of the potential each individual applicant had for speaking well in public. As David Gleim, the Auraria Library Dean, indicated “[if] they cannot present themselves articulately in a public forum, it makes it pretty difficult to be learning-centered” (personal communication, July 9, 2003).

The Auraria Library staff were focused on becoming better presenters in a public group. To accomplish that goal, the staff received training on learning how to use PowerPoint software for presentations. In addition, they received training on how to use the classroom technology for their PowerPoint presentations.

Library Support of Information Technology to Improve and Expand Student Learning

The library supported this objective in the following ways: (a) the addition of a general use computer lab, also known as computer commons, and (b) the design and implementation of a lab dedicated to library instruction on information literacy and technology. The library staff did their best work with students who had basic computer and keyboarding skills. The students who did not possess the minimal computing skills were referred to the appropriate instruction classes that were offered by their institutions.

Library Support of Learning Outcomes Adopted by the College

The library supported the learning outcomes adopted by the College by providing technology and instruction programs and hiring an outreach librarian to promote resources and services. These actions occurred naturally rather than in the context of strategic planning with the College.

Library Support of Underprepared Students

The library administrator indicated that the answer listed above for information technology was applicable to the library support of underprepared students.

Humber College

The Setting

Humber College serves the Ontario area in Canada and is the only Vanguard Learning College located outside the United States. Humber College has two campus libraries—North Campus and Lakeshore Campus. The libraries recently migrated from DRA's (a library management software developer) library management system to a new library management system from SIRSI (the company that merged with DRA). The library belongs to a consortium of twelve colleges that have joined together in implementing the new management system. The new system allows the Humber libraries to link to a union catalog for all twenty-five community colleges in Ontario.

Last year, Ontario phased out grade 13 at the secondary level which caused the community colleges to have both grade 12 and grade 13 graduates applying for post-secondary programs at the same time. Fortunately, the Government provided funding, not only for the infrastructure, but also to encourage institutions to form collaborative partnerships so that they can accommodate more students. Humber College formed a partnership with the University of Guelph in a building initiative that accommodated approximately 1,000 students in fall 2003 in a blended four year degree. That partnership allowed the Humber libraries to introduce a new range of services to students in the Guelph-Humber program. Humber College is also in another partnership with the University of New Brunswick for the nursing program. Humber College libraries have

108,421 books and 1,185 periodical subscriptions in their combined collections; and a total staff of 28 of which 6 have MLS degrees.

For level of learning-centeredness of the library, the library administrator rated the library as a seven on a scale of one to ten with one being lowest and ten being highest. In order to become more learning-centered, they needed: (a) more targeted staff training, such as workshops on more effective reference interviews and web search techniques; (b) to work with the Curriculum Committee to integrate information literacy into the curriculum; and (c) to ensure that their library instruction classes were done extremely well so that the classes were meeting the needs of the students. The items they needed to do to become more learning-centered were: (a) design an assessment process for measuring the quality of customer service with the goal of creating a culture of service, (b) hold student focus groups to determine level of satisfaction with library services and resources, (c) employ better usability testing on their website in order to identify weaknesses and determine the direction of the development of the website, (d) develop more expertise for web development among their permanent staff, (e) better promotion of library services to faculty (faculty outreach) and (f) work more closely with Student Services personnel (student outreach).

Opportunities that the library administrator capitalized upon to assist the libraries to become more learning-centered included: (a) the receipt of major funding to support the degrees offered through the partnerships, (b) the implementation of a major collection development project made possible by the additional funding, and (c) a spill over effect

into the other disciplines from the additional funding. Challenges encountered included:

(a) provision of quality resources and services to a diverse curriculum and diverse student body and (b) the limitations imposed by the layout of the current library facility on the North Campus.

Best Learning-Centered Practices

One of the best learning-centered practices has been the provision of effective customer focused reference and circulation services. All library staff, including new hires, were well-trained on customer services, and the expectation was that the staff would maintain that focus on providing quality customer services. The library administrator considered customer service to be her main focus and was the reason this learning-centered practice was selected.

Another best learning-centered practice was the provision of web-based resources. The library web pages provided access to a comprehensive range of electronic information resources. Although the College did not have a large enrollment in the distance learning program, there were plans to grow enrollment in that area. Humber College has focused on encouraging the development of life-long learning in its students; this goal has been included in the College's strategic learning plan. The College has planned to survey alumni to determine if there is strong interest in having remote access to the library's electronic databases. If the alumni express an interest, then the College will negotiate with these database vendors to add that access for the them.

The Learning Commons was not established within the library building because the five floor facility could not support additional floors or a re-allocation of space. Therefore, the Learning Commons was included in a building that was geographically located next to the library and connected via a second floor walkway. Library staff have manned the inquiry desk situated in the Learning Commons. The library administrator developed an integrated staffing model so that all the reference librarians work in both locations. The integrated staffing model enabled an integrated approach in supporting the needs of the students to develop.

Staff Recruitment and Development

The library administrator had direct responsibilities for recruitment. The hiring process was designed to find employees with a service perspective and openness to adapting to a changing environment. The College utilized a selection committee which developed questions that helped to identify the applicant's commitment to customer service.

The library administrator ensured that new staff members were learning-centered by providing orientation and training on the specifics of their jobs and the library's service philosophy, making sure that all library staff knew about the library's successes and failures with customer satisfaction, and by sharing compliments about service provided by library staff members. In the library, creating a culture of service was deemed to be of utmost importance.

One of the ways the College helped to prepare staff to be effective facilitators of learning was by encouraging all support staff to take a series of customer service workshops offered by the Studio, the College's Staff Development Program. Staff who completed the courses were awarded a customer service certificate. The Studio also developed and offered self-study programs to assist faculty in their roles as facilitators of learning. Another way the College helped staff to be effective facilitators of learning was through the addition of a position devoted to working with international students and offering workshops to faculty who teach these students. The person who was hired in this position provided workshops to help staff improve their communications with the international students. According to Lynne Bentley, Director of Libraries, "Facilitating a better reference interview or facilitating better interactions at the Circulation Desk [with students of different cultural backgrounds] facilitates learning. It is important to facilitate a more comfortable learning environment for the students" (personal communication, August 7, 2003).

Library Support of Information Technology to Improve and Expand Student Learning

The primary way that the library has utilized information technology to support student learning was by providing access to resources via the library's webpage. They had plans to develop online tutorials for the various electronic databases. In particular, they were considering adapting Transitions, the online tutorials developed by the University of Guelph Library staff. Their tutorials focused on the development of

learning skills, such as study skills, research skills, and critical thinking skills, in the first year student. The librarians facilitated a high volume of library instruction classes on information literacy; however, the library administrator indicated that there was much more that they could do with information literacy.

Library Support of Learning Outcomes Adopted by the College

The Curriculum Committee incorporated the learning outcomes adopted by the College into the curriculum. The library staff were not a part of that process; however, they did receive course outlines which included the learning outcomes. The library staff used these course outlines to guide the collection development process and to assist with customization of the library instruction classes.

Library Support of Underprepared Students

There were two areas in which the library staff interacted with departments or programs that supported underprepared students—English for Academic Purposes (EAP) and Tutoring Services. They supported the EAP program by providing appropriate resources and a comfortable environment for the students, and they supported Tutoring Services by making study rooms available to the tutors. Primarily, Humber College did not have a large underprepared student population because of the rigorous admissions requirements.

Kirkwood Community College

The Setting

Kirkwood Community College is a multi-county institution with an enrollment of about 14,000 students. The main campus is located in Cedar Rapids, Iowa; and the secondary campus is located in Iowa City, Iowa. In addition, learning centers are located throughout the multi-county area. Full library services are available at both the main and secondary campuses. The libraries offer remote access to resources for students taking courses at the learning centers. The main campus library opened in 1967. The combined collections of the libraries totaled 75,685 books and 662 periodical subscriptions; the library staff totaled 16 of which 8 have MLS degrees.

The library administrator rated the level of learning-centeredness of the libraries as an eight on a scale of one to ten with one being lowest and ten being highest. The library staff needed to have more opportunities to work directly in curriculum development and more involvement in the course or program approval process in order to be more learning-centered. The outcome of more involvement would be reflected in the quality and quantity of resources in the libraries' collections to support curriculum.

The library staff needed to revise their assessment plan. Up to now, they had collected primarily inputs (how many books checked out, how many reference questions answered, etc.). The assessment revision will be guided by the questions most often asked in the Learning College Project—How does this improve and expand student learning? and How do you know?

The opportunities that supported the change to a learning college had been driven by the organizational culture of Kirkwood Community College. Jerrie Bourgo, retired Library Director, said:

There's a tremendous amount of pride . . . among the people who work at Kirkwood. Our presidents and vice presidents encourage creative risk taking. The love that [staff has] for the institution, the sense of cooperation, the upper administration attitude—that creates a number of opportunities. (personal communication, July 29, 2003)

The challenges to becoming more learning-centered were a lack of funding and a change in the reporting structure from reporting to instructional services to reporting to educational services. The library administration overcame the funding challenge through creativity and resourcefulness to continue to provide quality information resources. They overcame the reporting structure challenge by obtaining permission to attend instructional services meetings.

Best Learning-Centered Practices

One of the best learning-centered practices was aligning the development of the libraries' websites with learning-centered principles. Arron Wings, Library Director, stated:

I think learning-centeredness came to the fore as we made decisions on profiles and appearances and screens, and just that whole look of the system that the students see, to simplify that to make it as welcoming and as easy to deal with as possible. (personal communication, July 29, 2003)

Their new website offered remote access to their learning centers' resources to all faculty, staff, and students from any computer with an Internet connection. As part of the design and implementation of the new automation system, the library administration hired a consultant from the automation software vendor to work with staff to resolve work-related issues.

A collaborative team comprised of librarians from Kirkwood Community College and the Psychology Library at the University of Iowa created an online tutorial for the PsychInfo database for students at both institutions. The online tutorial was so successful that the American Psychological Association has expressed an interest in sharing the online tutorial with its users.

In order to make the facilities more learning-centered, the Iowa City Campus Library underwent major expansion. The Cedar Rapids Campus Library was rearranged to make materials easier to access and more usable. Staff redesigned the filing systems for periodicals to make them more accessible to students.

The above best learning-centered practices were selected based on the six key principles of the learning college (O'Banion, 1997b). As Jerrie Bourgo indicated, "We wanted all the things that we had done in the best practices area centered on access to learning, creating learning modules, student success, leadership development, and human resources" (personal communication, July 29, 2003).

Staff Recruitment and Development

The College revamped the application process to include questions concerning how the applicant will contribute to the learning of others and how he/she will contribute to their own learning. (Kirkwood Community College, 2000). There were four questions added to the application process; one of the questions focused on the applicants' understanding of learning and how learning happens.

The library utilized cross-departmental selection committees. Jerrie Bourgo reported, "Those perfections of talents and abilities and those feelings of personalities across departments become very important" (personal communication, July 29, 2003). The selection committee used probing open-ended questions and numerous scenarios with the goal of selecting staff that had service orientation. Jerrie Bourgo added that they sought to hire reference librarians with a "desire and ability to use a reference encounter as a learning experience" (personal communication).

The College's staff development plan was designed to create an awareness and understanding of the principles of a learning college as well as to assist staff in becoming effective facilitators of learning. All new faculty hires (librarians had faculty status) participated in an orientation that was heavily based on learning-centered principles and practices.

The staff evaluation plan developed by the College helped to ensure that new staff members are learning-centered by requiring frequent evaluations of new employees or internal transfers. New employees were evaluated once a month for the first six months

of employment and then at six month intervals. For internal transfers, the evaluation process was once per month for the first three months. The evaluations were considered to be an opportunity for frequent feedback to assist in the professional development of the employee. Evaluations at Kirkwood Community College were considered to be a time to measure progress not to bring up problems. Problems were handled as they occurred.

As part of staff development, the College developed a program entitled Learning Circles which provided “expanded opportunities for faculty and staff to facilitate group exploration of topics of interest” (Kirkwood Community College, 2000, ¶1). Staff was also encouraged to attend professional workshops and conferences. Many staff members participated in one of the information literacy summits hosted by Moraine Valley Community College.

The staff attended technology institutes that the College offered. The technology institutes were a direct product of the Vanguard project. Arron Wings said, “There’s a definite slant in all staff development at Kirkwood focusing on serving learners” (personal communication, July 29, 2003). Learning-centered workshops were offered at the annual staff development days.

Library Support of Information Technology to Improve and Expand Student Learning

The library administration indicated that information technology had changed their lives fundamentally. The most important aspect of information technology was the

opportunities for students to learn whenever and wherever they want; information technology has expanded those abilities. Jerrie Bourgo stated:

They can get resources in remote locations; now they can get different types of resources that are available to them that have not been available in the past with our online databases, and I think just being able to word process, [and] communicate with the professors through email. We use WebCT here as a delivery mechanism both to supplement face-to-face classes, and we also deliver what we used to call our anytime anywhere classes through WebCT. (personal communication, July 29, 2003)

How did Kirkwood Community College assess the impact of information technology on student learning? The library administration reported that the College has been working to improve assessment in terms of outcomes and that work has not yet been completed. However, the English Department recently rewrote their learning objectives for Composition II and included evaluating and accessing information and electronic resources as part of what would be specifically taught in the course.

The Kirkwood Community College libraries ensured that their students were information literate by: (a) utilizing the reference contact as a teaching/learning exchange, (b) emphasizing critical thinking and the evaluation of information sources both in the casual reference context and the formal library instruction setting, (c) offering a one-hour credit course that stressed research at the transferable scale, (d) adding word processing software to the computers students use in the libraries, and (e) adding a dedicated terminal for paralegal students for access to Lexus Nexus on campus.

Library Support of Learning Outcomes Adopted by the College

The library administration specified that their libraries had traditionally supported the learning outcomes developed for the academic programs by their very nature. In addition, technology has enabled them to support student engagement by providing alternative formats for information resources and remote access to resources. The libraries provided learning aids, such as skills sheets, guidebooks, and citation sheets, to assist students with their information needs. A key part to supporting the learning outcomes was the provision of expanded access to resources through the creation and development of a learning-centered website.

Library Support of Underprepared Students

The libraries supported underprepared students by: (a) having a librarian available to assist the underprepared students with their information needs during the hours of operation, (b) offering a one-hour credit course designed to meet the research skills students need for the successful completion of the requirements for a degree and to meet their life-long learning needs, (c) developing skill sheets, (d) updating and publishing a guidebook for all of the libraries and centers, and (e) acquiring resources on appropriate reading levels. For the large number international students enrolled in the College who were challenged to comprehend the American political system, the libraries purchased eighth and ninth grade materials that described the political process for these students.

Determination of the libraries' contributions to the success of underprepared students was predominantly accomplished by personal observations by library staff.

Jerrie Bourgo stated:

I think we see that those kind of longer range things have contributed to their success; it doesn't work every time for every student in the short time I have been here. . . We have a fairly good success rate with our underprepared students—we get to see them build their skills [and] become more confident, more able students. (personal communication, July 29, 2003)

The assessment of the libraries' contribution to the success of underprepared students was accomplished by personally observing the students' use of resources; some of the underprepared students transformed over time to being excellent students. Library staff remarked that the underprepared students who became excellent students frequently attended a university and excelled there.

Lane Community College

The Setting

Lane Community College, located in Eugene, Oregon, consists of a main campus and community learning centers strategically located throughout the area. Lane Community College Library opened in 1968 and has 66,718 books and 215 periodical subscriptions in its collection and a total staff of 14 of which 5 have MLS degrees. The library serves 13,000 annual full-time equivalent (FTE) students which equates to 40,000 unduplicated head count students.

The library administrator rated the level of learning-centeredness attained by the library as a five on a scale of one to ten with one being lowest and ten being highest because they had reached a level of awareness of learning-centered principles; what they had left to accomplish was institutionalizing the learning-centered principles into the library. In order to become more learning-centered: (a) the library staff needed to understand where what they do fits into the scheme of a learning college, (b) the size of the library staff needed to increase to handle the volume of traffic (see enrollment figures above) particularly in the areas of information systems and reference services, and (c) library staff needed to begin working on integrating the information literacy principles and the learning-centered college principles into the library.

The actions the library needed to do to become more learning-centered were: (a) increased collaboration with faculty to find out what served their students best, (b) increased collaboration with students to find out what was helpful to them, and (c) an increased library presence in the distance learning courses.

Opportunities that the library administration capitalized upon to assist the library to become more learning-centered included: (a) leveraging the accreditation process as an opportunity to refocus the library operation on the learning principles and increase funding and (b) conducting strategic planning for the library during the summer term. Some challenges that the library faced on their journey to become more learning-centered included: (a) lack of time to conduct long term planning and (b) dearth of faculty

members during the summer term when there was time for collaborative strategic planning to occur.

Best Learning-Centered Practices

The Library 127 course was one example of their best learning-centered practices. This course was recently increased from a three-hour credit course to a four-hour credit course. The format of the course was self-paced and required an orientation at the beginning and a final research project in lieu of a final examination. Nadine Williams, Library Director remarked “because the objectives of the [Library 127] class are to make sure that the students actually learn everything there is to learn, everyone at the Reference Desk knows that one of the first priorities is to help those students with their assignments” (personal communication, July 23, 2003).

Another example was the library’s support of the Writing 123 classes (research process classes). In the future, a library credit component will be added to the course.

A third example was the collaboration that occurred between library staff and instructor in the Writing 123 class. The instructor assigned a project which required the students to schedule an appointment with the reference librarian to receive assistance to formulate a research strategy. Nadine Williams indicated:

. . . in terms of the learning-centered principles, it’s fabulous. The students decide what they want to know about; they get full attention from us. . . From my point of view, the students do that kind of intensive interaction with librarians which creates substantive change; there is a mental engagement of the learner as partners in the process. (personal communication, July 23, 2003)

Staff Recruitment and Development

Whenever a vacancy occurred, a selection committee was formed consisting of faculty, classified staff, and individuals from other departments. The committee rewrote a job description based on what they thought was needed for this position; the job description had to fit within the parameters established by Human Resources. In the job description the essential functions were delineated as well as the knowledge, skills, and abilities required for the position. The job description was next sent to Human Resources and Affirmative Action for their approval.

The committee developed a screening matrix based on a points system for minimum requirements and other related criteria. In the application process, candidates were required to submit either a statement specifying their qualifications that meet the essential functions of the position or a cover letter with the same information.

The committee then created interview questions and another matrix for scoring the interviews. Primarily, the committee elected to interview more people rather than fewer. At the end of the interviews, two to three candidates were selected to move ahead in the process. After references were checked, the candidates' names were forwarded to Human Resources and the appropriate administrator(s) for approval.

To ensure that staff was learning-centered, the College revamped the performance evaluation process to align with learning-centered principles. The library administrator has been working on a project to identify core learning-centered competencies. The list will establish expectations for library staff to be considered learning-centered.

Eventually, library staff will develop work plans to focus on how they will be more aware of and sensitive to the learning-centered principles.

Specific examples of activities provided to prepare library staff to be more effective facilitators of learning included: (a) fall term full-day collegewide workshops and spring term half-day departmental workshops focused on developing staff into facilitators of learning, (b) development of a collegewide strategy to move the college forward in this goal, and (c) the requirement that every staff member design an annual work plan based on how well they are adhering to the principles of a learning college.

Library Support of Information Technology to Improve and Expand Student Learning

The library supported information technology to improve and expand student learning in the following ways:

1. the implementation of an electronic classroom with 24 high level use computers for library instruction,
2. the installation of 26 high level use computers with the library for student use, and
3. collaboration with distance learning programs to provide remote access to resources and services.

Assessing the impact of technology has not yet been developed. The data collected has predominantly been inputs—how many hits on the websites and databases, etc.

At the time of the interview, the library staff were in the beginning stages of planning for information literacy. The Library 127 course was modified to align with the

ACRL's Information Literacy Competency Standards. The impending accreditation visit in the fall of 2004 necessitated the addition of an information literacy component to its general education requirements. The staff was in the process of adapting the Texas Information Literacy Tutorial to their own needs so that they will have an online tutorial to offer to students. Lastly, the library staff were considering the possibility of requiring every student to complete a basic library assignment, either online or in the library, as evidence that they had met a certain component.

Library Support of Learning Outcomes Adopted by the College

At the time of the interview, the College was in the process of writing the learning outcomes so it has not yet been determined how the library will contribute to or support those outcomes.

Library Support of Underprepared Students

The library contributed to the success of underprepared students by: (a) collaborating with Tutor Central (a tutoring service) to offer wireless access to resources, (b) working with Women in Transitions program staff to design special assignments for their students, and (c) providing a welcoming and safe environment where students feel comfortable asking for help with their information needs.

Madison Area Technical College

The Setting

Located in Wisconsin, Madison Area Technical College (MATC) is organized into several regional campuses and centers all of which have libraries. The main library opened in 1965. The combined libraries have 62,000 books and 900 periodical subscriptions in their collections and a total staff of 32 of which 5 have MLS degrees. MATC libraries are unique among the Vanguard Libraries in that they provide the computer hardware and software support to the College.

The library administrator rated the level of learning-centeredness attained by the libraries as a nine on a scale of one to ten with one being lowest and ten being highest because of the traditional support libraries provided to users and the technology available at their College. The College has stayed on top of advances in technology and has had the advantage of hiring staff who embraced technology changes. To be more learning-centered, the library staff needed to: (a) stay abreast of changes especially technology changes and (b) request funding for resources driven by curricular changes. To be more learning-centered, the actions the library staff needed to do were to continue reducing the number of print periodical subscriptions (made possible by the plethora of full-text electronic databases).

The opportunities that library administration capitalized upon to assist the libraries to become more learning-centered included: (a) remodeling the main library to accommodate the information commons and the library instruction classroom, (b) having

access to a nearby library science college provided a ready pool of MLS librarians for new and vacant positions, and (c) having sufficient funding to support technological changes. Some of the challenge that the libraries faced on their journey to become more learning-centered included: (a) staff attitudes toward technology and (b) keeping one step ahead of what the students needed to know in the area of technology. The library administration overcame the staff attitudes toward technology by providing intensive technology workshops on hardware and software applications. Keeping one step ahead of the students was overcome by encouraging staff to keep up to date by attending professional workshops and conferences and by reading professional journals.

Best Learning-Centered Practices

One of the best learning-centered practices at MATC was the implementation of the information commons in the library. The remodeling of the library facility provided space for the information commons which contained 100 computers plus the reference service desk. Prior to the remodeling these functions were separate and required students to go back and forth between the two areas to complete assignments. The information commons served as the main computer lab for the College.

The library's outreach program was another best learning-centered practice; the outreach program enabled librarians and faculty to collaborate on the development of customized library instruction classes. The remodeling project made space available for a library instruction room which housed approximately 35 students and 22 computers for

hands on experience. Basically, the librarians facilitated two types of instruction—library literacy and research in specific subject areas. Librarians scheduled short five minute visits to classrooms as another part of their outreach program. The librarians used a laptop to give students a quick overview on what the library had to offer. The goal of the short visits was to entice students to frequent the library.

The design of the library's website was another best learning-centered practice. A survey was conducted in preparation for a portal project; results demonstrated that the library's website was the second most used web link that students accessed, and it was the best designed website.

The College's staff development program called Tech Academy was another best learning-centered practice. Tech Academy was a week long program administered collegewide for new and returning instructors. The library staff were involved with the Tech Academy as facilitators for showcasing new electronic databases and demonstrating how to set up proxy services to access the electronic databases.

Staff Recruitment and Development

The library administration worked closely with Human Resources on the position descriptions. Human Resources advertised positions in the *Chronicle of Higher Education* and the College's website; the ads included information about the learning college (Madison Area Technical College, 2003). At a minimum, the selection committee was comprised of the supervisor and an outside expert. The College was more flexible in

terms of other potential committee members. Human Resources did the initial screening and approved interview questions developed by the selection committee. Questions were designed to assess the learning-centeredness of each applicant. The applicants were required to demonstrate a performance exercise specific to the position. For example, a reference position required the presentation of a research project to the committee.

The College ensured that new staff members were learning-centered through the selection process and the development of a Resource Guide. The guide was distributed to all new full-time employees and part-time classified employees during the hiring process. The guide included the “college’s mission, vision, values and strategic plan, administrative policies, a guide to services at the college, acronyms commonly used, staff development offerings for the year, and directions for accessing various types of learning opportunities” (Madison Area Technical College, 2003, ¶16). When hiring new librarians, Kalleen Mortensen, the Library Director, indicated, “being [learning-centered] is so integral to a librarian’s sense of purpose; . . . even [other staff] seem to understand, just by osmosis, how important the students and the users of the library are” (personal communication, July 17, 2003).

Staff was prepared to be more effective facilitators of learning through the College’s staff training and development program and the library’s professional development activities. Effective collection development required staff to keep current in the specific subject areas to which they had been assigned by reading professional journals for those subject areas.

Library Support of Information Technology to Improve and Expand Student Learning

The information commons was one way that the library supported information technology to improve and expand student learning. The library's webpage was another way that the library supported information technology. The third way that the library supported information technology was by teaching evaluation of information sources to students. The library staff taught the students, either in a class or in a one-on-one situation "how to know if a website is good and current, to limit the domain so that they are not just getting commercials" (K. Mortensen, personal communication, July 17, 2003).

Library Support of Learning Outcomes Adopted by the College

The library supported the learning outcomes adopted by the College via provision of the following:

1. the information commons: housed the main computer lab and provided assistance to students in research and use of application software;
2. the user-friendly library webpage: provided access to resources and services;
3. the layout of the library facility: encouraged group study and a welcoming environment;

Library Support of Underprepared Students

The Learning Center provided tutors and instructors to help students with special needs. Although the Learning Center was housed in the library, it was not a reporting

department within the library's organization. Having the Learning Center located in the library provided these students and faculty with access to resources and assistance. In addition, library staff received training on how to work with students with special needs (physical or learning disability).

Moraine Valley Community College

The Setting

Moraine Valley Community College is located in Palos Hills, Illinois, a suburb of Chicago. The Robert E. Turner Learning Resources Center at Moraine Valley Community College opened in 1967. It has 77,731 books and 553 periodical subscriptions in its collection and a total staff of 30 of which 15 have MLS degrees.

The College was unique in that the library administrator was selected to be a member of the Vanguard Project Team. The library administrator used the knowledge gained from this experience to implement new services in the library and to look at the library's policies and procedures to see how she could integrate new policies and procedures or revamp existing policies and procedures to become more learning-centered.

The library administrator rated the level of learning-centeredness attained by the library as a seven on a scale of one to ten with one being lowest and ten being highest. She indicated that there was always room for improvement to keep up with the changes in the organization. In order to become more learning-centered, the library administrator

indicated the importance of and the need for continuous administrative support.

Continuing education for the library staff were an action that the library administrator indicated was necessary to become more learning-centered.

Opportunities listed by the library administrator that helped the library progress in its journey to become more learning-centered included: (a) developing new programs and services and (b) hiring new staff. The challenges encountered consisted of: (a) skepticism on the part of library staff who thought the learning college was just another fad and (b) resistance to change on the part of some library staff members. The library administrator overcame the skepticism by showing library staff the difference between being a good library and being a learning-centered library. The library administrator overcame resistance to change by working with library staff members who were ready and willing to work with her; this helped to establish trust between the library administrator and library staff.

Best Learning-Centered Practices

One of the best learning-centered practices of the Robert E. Turner Library/Learning Resources Center was the employment of a usability study of the library's website to assist the website to become more learning-centered. The library staff wanted to ensure that the website was fully understood by their students and that the students could easily navigate it to find the information they needed. They used the

results to make changes to their website. This example was selected because the library staff were trying to become more learning-centered in an online environment.

Another example of a best learning-centered practice was the development of a library unit devoted to information literacy for the College 101 course which is required for all students. In this unit, the students received the basics of what it means to use a college library. This example was selected because it was the solution to a problem that the library staff had noticed when their students transferred to a university. The students had difficulty in using the library resources at the university.

Another example of a best learning-centered practice was the collaboration that occurred between library staff and content specialists in developing more subject-oriented information literacy sessions. These sessions were intended to be more relevant to the courses students took. So far, they have developed three different categories of information literacy that they offer.

The organization of two statewide summits on information literacy was another example of best learning-centered practices. The library staff hosted these summits for librarians working in community colleges. One of the library administrators at Kirkwood Community College mentioned staff attendance at one of these summits during the interview.

Staff Recruitment and Development

The recruitment process used at Moraine Valley Community College consisted of these steps:

1. Job descriptions were written to reflect the language, goals, and objectives of a learning college.
2. Faculty positions were posted in the local newspaper, the *Chronicle of Higher Education*, and the American Library Association website.
3. The applicants were first interviewed by telephone and asked one questions—Are you familiar with the learning college principles?
4. Applicants who interviewed on site were required to present a twenty-minute teaching demonstration to students. This type of demonstration gave the committee an idea of how each applicant interacted with students.
5. For hiring other library staff, library administration tailors the interview to the purposes of the position. For example, in circulation, is it their job to make sure that the book is on the shelf; or is it their job to be sure that the material is available to students when they need to find it? (S. Jenkins, personal communication, July 14, 2003)

Once a new staff member was hired, the library staff offered numerous inservice training sessions. In addition, the College, as a whole, offered frequent opportunities for staff development.

Library Support of Information Technology to Improve and Expand Student Learning

The library supported information technology to improve and expand student learning through: (a) the redesign of the library's website to be more user-friendly, (b) representation on the curriculum committee which resulted in the inclusion of

information literacy in the core competencies, (c) the development of the information literacy unit for College 101, (d) the subject-oriented information literacy sessions developed collaboratively between the librarians and content specialist, and (e) leadership in hosting two statewide information literacy summits.

Library Support of Learning Outcomes Adopted by the College

Each year the College adopted strategic priorities as the focus for planning. The library staff aligned their annual strategic plan based on the College's strategic priorities. The staff looked at ways in which the library could support or assist the College to meet the goals and objectives set forth in the strategic priorities.

Library Support of Underprepared Students

The library staff offered specially designed instruction sessions to developmental education and ESL students. The sessions were designed to be different from the traditional instruction classes in terms of the vocabulary used to explain concepts and the facilitator's expectations of the students.

Palomar College

The Setting

Palomar College, located in San Marcos, California, is the birthplace of the learning college movement. Two of its professors, Robert B. Barr and John Tagg, wrote

an article on learning which proposed that colleges shift their focus from the instruction paradigm to the learning paradigm. The climate at Palomar was conducive to change, both in the classroom and in the library, and focused more on student learning. By its very nature, the library was well-positioned to be in the forefront of the shift in focus.

Palomar College Library-Media Center opened in 1946. By 2003, it had 108,400 books and 900 periodical subscriptions in its collection with 5 librarians with MLS degrees. As part of the shift in focus, the library staff developed a new mission and vision statement. The vision stated, “the library should become a powerful learning environment not unlike the classroom” (G. Mozes, personal communication, July 16, 2003). The primary goal of the library was to prepare students to become efficient in using the tools of the library in becoming life-long learners. Other changes implemented by the library staff to assist students to become information competent included: (a) making the environment conducive to learning by improving the physical layout of the library and improving identification of staff so that students could easily locate someone to help them, (b) increasing the number of orientations offered and (c) providing ongoing weekly instruction classes with an open door policy.

The library administrator rated the level of learning-centeredness attained by the library as a seven on a scale of one to ten with one being lowest and ten being highest. To become more learning-centered, the library needed to add more staff because the existing staff was not adequate to reach the large student population (30,000) or to allow for more time spent helping students on a one-on-one basis.

The actions the library administration needed to take to become more learning centered included: (a) hiring more staff, (b) finding funding to support the hiring of new staff, and (c) integrating information competency into the core curriculum after the College implements the new curriculum.

Opportunities that the library administration utilized to help the library become more learning centered included: (a) showcasing the library's role in the learning paradigm and (b) leveraging the library's historical role in teaching to position the library to promote life-long learning. Challenges encountered in this process included: (a) no requirement for students to be information competent at the department or discipline level and (b) the large number of students served by the relatively small library staff.

Best Learning-Centered Practices

The library offered a series of specialized training sessions on information organization and retrieval through the Library Technology Program. Students who completed the training received a Library Technical Assistant Certificate which qualified them for employment in various types of libraries—special, public, academic, and schools. The program was recently revamped by an advisory committee comprised of representatives from the information field. The curriculum was revised based on the committee's input on the skills and knowledge that library technicians should have when they complete the program of study. The curriculum included courses on: (a) library and information services, (b) library operational skills in technical and public services, (c)

reference sources and services, (d) library media and technology, (e) library services for children and young adults, and (f) special topics workshops. This example was selected because of its learning-centered approach to the redesign of the curriculum and the opportunity to teach the students in the program to be more learning-centered.

The next example selected as a best learning-centered practice was one of the workshops offered as part of the Library Technology Program. The workshop, LT 130 Library & Media Technology, was designed to train students on the use of classroom and library technology (Palomar College Library, 2004). Students enjoyed taking this course because it was offered online as an independent learning module. Students particularly liked receiving the benefit of learning the information technology competencies without having to attend a formal class each week. This example was selected because it supported the “anyway, anyplace, anytime” (“The Learning College Project,” 2003, ¶ 1) component of a learning college.

The library instruction program was another example of a best learning-centered practice. The library staff had increasingly offered instructional sessions on library and information literacy skills for which the library administration received positive feedback from both faculty and students. Through this program, the library staff reached a larger number of their students. This example was selected because it moved the library closed to the objective of making all students information competent.

Another example of a best learning-centered practice was the librarians’ participation in team teaching as a content partner with the instructor in three different

subject areas. This example was selected because the students benefited by learning how to do research within the context of these subjects.

Another best learning-centered practice was the design and development of the library webpage. The library staff were among the first departments to develop a webpage at the College. The library staff utilized the webpage to promote library resources and services.

Staff Recruitment and Development

The College's staff recruitment process was regulated by very strict rules and procedures. In addition to the traditional methods of advertising for openings, positions were advertised in professional journals. Interview questions were limited to some aspect of the job description and no follow-up questions were allowed. The College made sure that student learning was an integral part of every job description so that the hiring committee could ascertain the applicant's skills, knowledge, and/or interest in student learning. Hiring decisions were based on the points applicants received during the interview process.

The following activities were specifically designed to assist library staff to become more effective facilitators of learning:

1. At the beginning of the transition to a learning college, the library staff participated in a retreat designed to prepare staff for the transition. At the retreat, pedagogical issues and various aspects of the learning paradigm were discussed as well as how to work with students on a one-on-one basis. The retreat helped staff to focus on perceiving students as learners from a facilitator's perspective.
2. Library staff took part in workshops that were developed on various topics such as how to deal with irate people. The library administration tried to help the staff make the transition to being learning facilitators by arming them with the skills necessary to be learning facilitators.
3. During regular staff meetings, the library administration emphasized using encounters with students as opportunities for a learning experience to occur.
4. The library subscribed to many professional journals. Library administration held journal conferences in which staff discussed what they had read.
5. The library administrator worked with library staff on a one-on-one basis to assist in their development learning facilitators.

Library Support of Information Technology to Improve and Expand Student Learning

This question was answered from the perspective of the College. The College embarked upon an ambitious project to integrate technology into the classrooms. This project involved bringing data to the classrooms through cabling. Eighty percent of the classrooms had a dedicated TV/VCR. Fifty percent of the classrooms had a data projector installed in the ceiling. Several classrooms had the capability of controlling the media from the instructor's console. The technology in the classrooms allowed the professors to present all kinds of media data in various formats.

The College had an Academic Technology Group (ATG) whose responsibility it was to assist faculty with designing online classes as well as showing them how to use technology in the classroom. The ATG staff also showed students how to use technology for their presentations.

The library's technology plan was based on the College's technology plan. According to George Mozes, the Library Director, "[the technology plan] is, basically, an important aspect of student-centered learning . . . as well as learning anyplace anytime" (personal communication, July 16, 2003).

Library Support of Learning Outcomes Adopted by the College

The College has not yet completed the process of adopting the learning outcomes so the library administration did not know how the library will support these outcomes. The College had plans to look into ways to measure the learning that was taking place.

Library Support of Underprepared Students

At the College, tutoring was a part of the library operation. Other ways the library supported underprepared students was through orientations, seminars, short courses, and one-on-one sessions. Assessing the library's effectiveness in the success of underprepared students has been difficult because there was no formal plan developed that would determine the library's contribution to these students. In the past, a questionnaire was distributed to students after these instructional sessions; however, the

staff did not find the results to be very meaningful. In most cases, the answers were very positive, but the questions did not really get at how each student would apply what they had learned to their life-long learning needs.

Richland College

The Setting

Located in Dallas, Texas, Richland College is one of seven colleges in the Dallas County Community College District (DCCCD). Richland College Library opened in 1972 and has 91,000 books and 210 periodical subscriptions in its collection and a total staff of 19 of which 8 have MLS degrees.

The library administrator rated the level of learning-centeredness attained by the library as a six on a scale of one to ten with one being lowest and ten being highest. The library administrator considered the library to be a ten in terms of intention and desire, but much lower in terms of actuality. They have only begun to take baby steps in the direction of being fully learning-centered. To be more learning-centered, the library staff needed to “give up the idea that the scholarship of teaching and learning [was] all semantics with no practical value” (S. Jeser-Skaggs, personal communication, October 22, 2003). To become more learning-centered, the activities that the library staff needed to do included: (a) undertake a self-education process to understand what it really means to be learning-centered, (b) honestly assess where they are in the learning-centered process from a realistic perspective, (c) establish closer working relationships with other

parts of the College to solidify the function of learning facilitators for all staff, and (d) readdress the needs of the English for Students of Other Languages (ESOL) and how to expand learning opportunities for them.

Translating the learning successes in the library's program into data that ensures continued budget support from the College has been one of the biggest challenges faced by the library staff. Other challenges that were also considered opportunities were: (a) developing a learning-centered program that appropriately fits the largest single user group—ESOL students, (b) finding effective ways to forward the learning-centered initiative beyond the library instruction program, and (c) developing a library instruction program with greater flexibility so that it can quickly respond to the changing needs of their users.

Best Learning-Centered Practices

The library administration and staff selected the following best learning-centered practices based upon the extent to which they conformed to the definition of learning-centered.

Knowledge checker: The librarians agreed to incorporate three key concepts into each of the five classes in their information literacy program. As part of that program, they developed 15 questions to measure student achievement of the key concepts. To receive a certificate of completion of the five information literacy classes, students were

required to take a 15-question quiz. The librarians tracked the overall success of student mastery of the information literacy skills from semester to semester.

Pre-Tests: Librarians started each class by requiring the students to take a pre-test. The purpose of the pre-test was to focus the students' attention on information that they did not yet know. The pre-test provided a framework for focusing students on what they needed to learn in the class.

Active/Cooperative Learning: The librarians utilized cooperative learning techniques whenever possible. These techniques included a feedback loop as part of the instructional process so that the facilitator knew immediately whether the students understood the concept(s) being taught in the class. Another technique involved asking students to write a question before class begins that they want the librarian to answer during the class.

Staff Recruitment and Development

Richland College's staff recruitment and development program had ensured that employees were learning-centered by:

1. revising the core competencies for employees to ensure learning-centered practices;
2. developing the Getting Your Feet Wet orientation which introduced the learning-centered philosophy to new employees;
3. providing release time for new faculty for professional development activities that focused on learning-centered practices;

4. sponsoring a series of teacher/staff formation retreats for all employees; and
5. through its Thunderwater Organizational Learning Institute, implementing a plan for professional development for all employees based on learning-centered values and practices. (Richland College, 2001)

For librarian positions, the library administrator utilized a selection team comprised of three librarians and one faculty member. Applicants who received an interview were given prior information about the award winning instructional program at Richland College and the expectations the College had for new staff for participating and contributing to the instructional program. Applicants were required to provide a sample teaching presentation to the interview team.

Library Support of Information Technology to Improve and Expand Student Learning

Richland College Library supported information technology to improve and expand student learning through:

1. its commitment to the information literacy program they had established,
2. the provision of public workstations in the library from which students can access the Internet, online catalog, electronic databases, and other resources, and
3. offering wireless access in the library to students using laptops checked out from the library.

At this time, the library staff did not have a method by which to assess how the students who participated in the 5 information literacy classes fared as compared to students who did not participate in the 5 information literacy classes.

Library Support of Learning Outcomes Adopted by the College

The library supported the learning outcomes adopted by the College by the implementation of the information literacy program. The information literacy program stressed the importance of critical thinking and analysis of information. In the information literacy classes, the librarians discussed the multitude and variety of information resources available to students and how these resources enabled them to become lifelong learners.

Library Support of Underprepared Students

Richland College had two programs for underprepared students—English for Speakers of Other Languages (ESOL) and the Rising Star programs. The Rising Star was a scholarship program available to high school graduates in the Dallas area who graduated in the top 40% of their class or passed an alternative assessment test for enrollment. These two populations required additional assistance from the library staff.

In the ESOL program, the library staff prepared a guide to resources that were specifically geared for their program. The librarians taught specially designed instructional sessions and met with ESOL faculty and lab staff to design library assignments for their students.

Sinclair Community College

The Setting

Located in Dayton, Ohio, Sinclair Community College is a single campus college serving approximately 24,000 students and has an outstanding reputation for being a strong supporter of underprepared students. When the Learning College Project opportunity came along, the College was in a good position to incorporate the learning-centered principles. Sinclair Community College Learning Resources Center was founded in 1887 and had 146,606 books and 576 periodical subscriptions in its collection and 7 librarians with MLS degrees.

On a scale of one to ten with one being lowest and ten being highest, the library administrator rated the library as a seven because of its traditional history of providing learning-centered services to faculty, staff, and students. In order to be more learning-centered, the library needed an infusion of new staff. The library operated with the same staffing plan that was in place when the college served 8,000 students. The actions the library staff needed to do to become more learning-centered were: (a) finding the time to market their services to faculty, staff, and students (directly related to staffing issues), (b) completing the renovation plans to ensure that the library facility will be aligned with the learning-centered principles, and (c) determining how the library will administratively report.

Some of the opportunities that the library administration capitalized upon to assist the library to become more learning-centered included: (a) expanding the existing

faculty-library relationships, (b) taking advantage of statewide workshops and funding for implementation of the information literacy project, and (c) benchmarking with other libraries in the Southwestern Ohio Council for Higher Education Consortium. Some of the challenges that the library faced were: (a) the confusion and uncertainty that resulted from frequent administrative reporting changes, (b) maintaining quality services to an ever-increasing faculty, staff, and students with a static staffing plan, and (c) finding time to implement innovative projects.

Best Learning-Centered Practices

One of the best learning-centered practices was a big college-wide initiative in which library staff collaborated with faculty on a plan to implement information literacy skills. Through their diligence, the college administration became aware of the importance of information literacy. The collaboration resulted in a major curriculum redesign in which the information literacy skills were incorporated into the general education curriculum. The curriculum changes took place in fall 2003.

Through the library's involvement with OhioLink, a statewide consortium that promotes learning-centered activities throughout Ohio colleges, one of the reference librarians received training on fostering and developing faculty-librarian relationships. The librarian used that training to collaborate with faculty on the information literacy project.

Under the umbrella of the information literacy project, other projects and initiatives emerged. One of these initiatives was the English Department project in which library staff collaborated with English faculty to design information literacy assignments and provided support to the students as they worked on these assignments.

The library staff selected the above-listed practices as best practices based upon their belief that these practices best illustrated how the library supported the learning-centered principles adopted by the College.

Staff Recruitment and Development

The library administration indicated that the library had very little turnover in staff so they had very little experience with hiring learning-centered staff. The Human Resources Department provided the guidance for the hiring process. During the College's participation in the Learning College Project, the hiring process and the staff development plan underwent a major redesign. The College made significant strides in realigning professional development with the learning-centered principles (Sinclair Community College, 2002).

The Staff Development and Innovation Committee (SDIC) was charged with the responsibility for developing training programs to ensure that staff were learning-centered and effective facilitators. The following activities were representative of innovative ways to accomplish the College's goal for developing learning-centered faculty and staff:

1. First Year Faculty Experience: Activities designed to introduce first year faculty to the College and the classroom, including orientation, introduction to teaching and learning, mentoring by volunteer full-time faculty, and a year's subscription to *The Teaching Professor*.
2. First Year Staff Experience: Activities designed to facilitate the transition of new full-time staff members to a college environment, while building a foundation for continuing professional development, including orientation, mentoring by volunteer colleagues, and training sessions.
3. Distinguished Teaching Award: Annual grant to one tenure-track faculty to recognize on-going exemplary contributions and to provide funding for a proposal focused on innovative instructional/curriculum project or productivity enhancement.
4. College-Wide Learning Days: Various workshops designed to expand faculty and staff knowledge and understanding of the learning-centered principles as applied to Sinclair Community College.
5. Strategic Learning Challenge Awards: Support for collaborative, interdisciplinary team projects designed to strengthen efficiency and effectiveness of academic programs and instructional services through special emphasis on interactive learning and related core indicators of the College. (Sinclair Community College, n.d., p. 3)

In the summer, the College encouraged the library staff to participate in its institutes. The library administrator utilized this training as an opportunity for library staff to learn skills for using new equipment and software. Library staff participated in ongoing learning activities such as the MicroSoft Office suite of application programs. Formats provided for the ongoing training activities included face-to-face and self-directed online learning. In addition, many library staff participated in training opportunities sponsored by OhioLink.

Library Support of Information Technology to Improve and Expand Student Learning

The College provided a portal for all faculty, staff, and students to use as the conduit for all information on campus. Faculty and staff used the portal to support learning communities, and the library's online resources and services were accessed through the portal. The ultimate goal was for the portal to provide access meet the information needs of employees and students.

Library Support of Learning Outcomes Adopted by the College

The library was directly involved with providing support to the students for the learning outcomes adopted by the College. The library administrator served on the committee that created the Staff Development and Innovation Center (SDIC); the SDIC was one of the principle developers of the learning outcomes adopted by the College. The reference librarians were called upon to identify resources that were appropriate to satisfy the needs of the learning outcomes. This project required the reference librarians to note where items were available that were not part of the library's collection. The library was designated as the repository for resources in the College's strategic learning plan.

Library Support of Underprepared Students

The library staff addressed the issue of providing services and resources to underprepared students in the following ways:

1. The library staff worked closely with faculty in the Developmental Department to help identify resources for students who did not have the background necessary to participate in college-level courses.
2. The library staff added materials that were appropriate for adult learners in the Developmental Program that were age appropriate in content and at the appropriate reading level.
3. The library staff served as a referral service to direct students to the appropriate departments where they received additional assistance.

Valencia Community College

The Setting

Located in Orlando, Florida, Valencia Community College has been on the cutting edge of the learning-centered movement. In 1995, Valencia Community College “launched an institutional transformation initiative focused on collaborating to become more learning-centered” (Valencia Community College, 2004, ¶ 1). The work has been completed in phases: Phase 1 (1995-1998) consisted of a series of roundtable discussions with representatives of all the stakeholders and was focused on building consensus on becoming a more learning-centered institution; Phase 2 (1998-2000) moved the initiative from “talk to action” (“Strategic Learning Plan,” 2000, p. 2); and Phase 3 (2000-2004) included the College’s commitment to continuing its transformation as a participant in the Learning College Project. Phase 3 moved the College from implementation to institutionalization of the learning-centered principles.

The Raymer Maguire, Jr. Learning Resources Center on the West Campus opened in 1967, the Learning Resources Center on the East Campus opened in 1975, the Learning Resources Center on the Osceola Campus opened in 1986, and the Learning Resources Center on the Winter Park Campus opened in 1998. The combined campus libraries had a total of 149,934 books and 842 periodical subscriptions in their collections and a total staff of 47.5 of which 18.5 had MLS degrees.

The library administrators rated the level of learning-centeredness attained as an eight on a scale of one to ten with one being lowest and ten being highest. In order to become more learning-centered, the LRCs needed additional staff to meet user needs and additional funding for resources. The actions needed to do to become more learning-centered included: (a) using additional funding to expand resources and (b) offering more training for staff so that they can incorporate the learning-centered principles even deeper into their positions.

Opportunities that the library administrators built upon to assist the LRCs to become more learning-centered included: (a) operating in an organizational culture that was conducive to change, (b) further developing the learning-centered attitude of the staff, (c) aligning the LRCs goals to match the learning-centered goals of the College, (d) having a diverse study body that continued to grow and bring a great dynamic in the LRCs, (e) utilizing the encounters the library staff had with faculty and students as an opportunity to promote the resources and services of the LRCs, and (e) seizing the opportunity to revitalize our reference departments in terms of collections and how

services were delivered. The challenges encountered on their journey to become more learning-centered included: (a) coping with funding issues, (b) developing a funding plan to ensure adequate resources, (c) dealing with increased usage of the LRCs with static staffing levels, (d) dealing with a lack of space for library instruction and shelving, and (e) finding creative ways to promote the services.

Best Learning-Centered Practices

Between August 2000 and January 2001, each campus LRC held a focus group session to solicit input from their stakeholders. The focus group sessions were facilitated by an outside consultant; participants were asked to respond to the following questions:

1. How are we currently learning-centered?
2. What is our vision of the future for the LRC (becoming more learning-centered)?
3. What are the challenges to becoming more learning-centered?
4. How can we continue the dialog?

The results of these focus groups helped the library staff at each campus to develop a strategic plan to assist the LRCs to become more learning-centered and to support the learning-centered goals of the institution.

Another example of a best learning-centered practice was the establishment of a textbook reserve collection at each campus LRC. The library administrators collaborated on the writing of a strategic budget initiative to support this collection. The College

Planning Council, which has responsibility for overseeing the budget, approved the request for funding. The textbooks were purchased from each campus bookstore and processed for the reserve collection. Students who were unable to afford textbooks for their courses checked out the textbooks in the LRCs for in-house use. This example was selected because students who did not have access to textbooks start the term at a disadvantage and had the potential for falling behind in course work. By creating a reserve collection of textbooks, the LRCs enabled students who found themselves in this situation to continue their learning. This was a prime example of the LRCs support of the Start Right strategic learning goal in the College's strategic learning plan.

Hands-on library instruction and one-on-one instruction offered by the LRCs were another example of a best learning-centered practice. The group and individual instruction was another instance of the LRCs supporting the Learning Support Systems strategic learning goal in the College's strategic learning plan. This goal focused on activities that supported learning outside the classroom environment. Group and individual instruction provided wonderful opportunities for the LRCs to assist students with their learning needs.

The development of a Spanish language webpage and a leisure reading collection was another example selected for a best learning-centered practice. This practice provided an opportunity for the LRCs to impact the Diversity Works strategic learning goal of the College's strategic learning plan. An action agenda for this strategic learning

goal was to “provide effective programs and support to include underrepresented populations in the college’s programs” (“Strategic Learning Plan,” 2000, p. 13).

The final example of a best learning-centered practice was the celebrations held at the campuses to promote the LRCs. One campus received funding from the Student Government Association (SGA) to support the celebration of National Library Week. The creative writing class students wrote poetry, music, and skits about the library and presented their work during a special program honoring libraries. Another campus frequently held festivals that also attracted community involvement with the campus. Examples of these festivals included the Support Center Festival and Reading Festival. These activities supported the Learning Works and Learning Support Systems strategic learning goals in the College’s strategic learning plan..

Staff Recruitment and Development

The College advertised positions in diverse publications, such as webpages, local newspapers, and journals to ensure that they had advertised to a diverse population. The College utilized hiring committees comprised of representatives from all areas of the College. First, the committee met to discuss the job description, establish timelines, ascertain the requirements for a teaching demonstration, and write questions based on the learning goals of the College and the job description. Next, the committee screened the applicants based on criteria that they believed were necessary traits for the position. If the pool was large, telephone interviews were utilized to narrow down the number of

applicants invited for on site interviews. Applicants selected for an interview were required to present a teaching demonstration. Last, the committee made recommendations for two to three applicants to move to the next level in the hiring process—a second interview with an upper level administrator and the supervisor of the position.

The College ensured that new staff was learning-centered through an orientation program which introduced the staff to the history of the college and its focus on being a learning college. New staff also participated in workshops designed to help them become facilitators of learning.

Activities that the College provided to specifically prepare library staff to be more effective facilitators of learning were as follows:

1. Library staff participated in Learning Day, a college-wide staff development day set aside to continue educating staff on how they can apply the principles of a learning college to their individual work situations. This staff development opportunity helped them to learn how to become facilitators of learning.
2. Each campus held half-day staff development activities designed to help staff learn how to turn routine encounters with students into learning opportunities.
3. Leadership Valencia (ongoing staff development program) offered learning-centered workshops periodically throughout each term.
4. Departmental meetings provided another opportunity for staff to discuss the learning-centered principles and their application to the LRCs.
5. The LRCs had staff development days for the library staff. One campus used the Olympics and games as a theme. These opportunities helped develop team work which enabled them to work together to meet students' information needs.

Library Support of Information Technology to Improve and Expand Student Learning

The LRCs had supported information technology to improve and expand student learning by: (a) offering library instruction classes that incorporated information literacy, (b) providing online information literacy tutorials, (c) providing reference guides, (d) providing wireless access for students to use, and (d) using custom developed software to track student usage of the computers in the LRC so that they can get credit from their instructors for doing research in the LRC. The library administrators knew that the students had been impacted by information technology because of the positive results from surveys, through personal observations, and from the usage statistics.

To ensure that their students were information literate, the library staff collaborated with faculty to develop assignments using online databases and resources in the LRCs. In addition, the library staff conducted group and one-on-one instruction to help the students with these collaboratively developed assignments.

Library Support of Learning Outcomes Adopted by the College

The College adopted think, value, communicate, and act as its core competencies. These competencies were embedded deep into the curriculum. Supporting the curriculum via resources and services to meet the learning needs of the students was the primary function of the LRCs. In addition, library staff from all the campuses adopted three library-related learning outcomes upon which to focus:

1. Student learning will be improved by breaking learning skills into appropriate units and through active collaboration between faculty and librarians.
2. To change each student's perception of the library as a service that others use to a place that is part of their LifeMap (student developmental model).
3. Students will select, critically evaluate, and document appropriate information resources for academic, personal, and professional needs now and beyond. (Valencia Community College, 2003, p. 1)

Kerry Sullivan, Manager, Learning Support Services at the Winter Park Campus, stated, "With these three outcomes to focus upon, the LRCs hope to impart the skills students need in order to be successful in their lives and careers after graduation" (personal communication, July 31, 2003).

Library Support of Underprepared Students

The College curriculum offered classes to underprepared students in three areas in which the library provided support: Student Success, English for Academic Purposes (EAP), and Preparatory Reading. At the beginning of each semester, Student Success classes visited the LRCs for an orientation to resources and services. The Student Success curriculum required students to do a presentation on a topic in which they were interested. Library staff in the Reference Department assisted the students with conducting research on their topics; library staff in the Audio Visual Department demonstrated how to use the technology in the classroom and software applications so that they can create their presentations. For the EAP classes, the LRCs provided a high interest low reading level book collection so that students of all different reading levels

could find books at their skill level for class assignments. In addition, the librarians did targeted instruction to meet the needs of these students. Librarians collaborated with the Preparatory Reading instructors to select books for their students reading levels and on creating assignments for their students.

The library staff worked with the Student Development Coordinators to develop festivals to reach out to non-library users. Through these festivals, non-users learned how the LRCs could help them in their college careers. The Academics in Motion (AIM) program was geared toward at risk students—low income, first generation in college, and single parents. The library staff developed workshops targeted specifically for these students on everything from how to do Modern Language Association (MLA) citations to how to do research in Academic Search Premier (online database).

Summary

This chapter presented the findings from the study of the libraries in the 12 Vanguard Learning Colleges. The findings were examined from the perspective of the objectives of the Learning College Project and the journeys of the libraries to become more learning-centered. Chapter 5 provides a summary of findings, implications for practice, and recommendations for future research.

CHAPTER 5

SUMMARY, DISCUSSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

Chapter 5 provides insight into the combined experiences of the libraries in the Vanguard Learning Colleges as they made the journey toward becoming more learning-centered. The data was gathered during the summer and early fall of 2003 and presents the reader with a overview of how far the libraries have traveled to become more learning-centered. The remaining part of the chapter includes a section on implications for libraries and recommendations for further study.

Summary and Discussion of the Findings

The summary findings and discussion of the data collected for the five research questions of this study are presented below:

Research Question 1

What is a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges?

An important part of this study was to identify characteristics of a learning-centered library. An analysis of the data derived from the telephone interviews with the library administrators or their designees and archival data revealed that a learning-centered library:

1. supports the teaching and learning processes of the college
2. empowers library staff to be facilitators of learning
3. conducts strategic planning and assessment
4. markets its services and resources to its learning community.
5. has facilities that are welcoming and conducive to the learning needs of its users
6. uses benchmarking with peer libraries and organizations to improve its resources and services

The data supporting each of the above listed components are described in detail in the following paragraphs.

Support of the Teaching and Learning Processes of the College

Data analysis demonstrated that supporting the teaching and learning processes of the college was a primary function of the libraries in the Vanguard Learning Colleges (See Appendix F). In fact, 100% of the libraries reported that they fully supported this function. Subcategories of this function included: (a) promoting information literacy, (b) providing for the learning needs of its users, (c) supporting the learning outcomes of the college, (d) providing library instruction, (e) participating in collaborative activities with various groups within the learning community, and (f) utilizing information technology to expand access to resources and services to the learning community.

Promoting Information Literacy

All of the libraries indicated that having an information literacy program was integral to their students' success in their college careers as well as in the future for their personal and professional lives (See Appendix F.1a). The literature review indicated that there were three levels of implementation of information literacy: (a) the basic level of implementation incorporated information literacy into the library instruction curriculum; (b) development of an information literacy course or courses was the next level of implementation; and (c) the integration of the information literacy competencies into the learning outcomes of the disciplines of the college was the highest level of implementation of information literacy (Association of College and Research Libraries Model Statement of Objectives Task Force, 2001; Kasowitz-Scheer & Pasqualoni, 2002; Rockman, 2003).

Humber College, Kirkwood Community College, Lane Community College, Madison Area Technical College (MATC), Moraine Valley Community College, Palomar College, Richland College, and Valencia Community College (66.7%) indicated that they facilitated information literacy competencies through library instruction classes (basic level of implementation). However, many of these libraries have gone beyond the basic level of implementation of information literacy competencies. For example, Kirkwood Community College, Lane Community College, Moraine Valley Community College, and Valencia Community College (33.3%) offered a credit course on information literacy competencies for their students (second level of implementation). Cascadia Community College, Community College of Baltimore County (CCBC), the

Auraria Library at the Community College of Denver, Kirkwood Community College, Lane Community College, MATC, and Sinclair Community Colleges (58.3 %) reported that they have integrated the information literacy competencies into the core competencies of the curriculum (highest level of implementation).

The ultimate goal of information literacy has been to develop life-long learners. An analysis of the telephone interviews and archival data showed that 91.7% of the libraries in the Vanguard Learning Colleges promoted life-long learning as part of their information literacy programs. Humber College has taken a unique approach to the promotion of life-long learning. Supporting life-long learning was one of Humber College's main goals in its strategic learning plan. To meet that goal, the College aspired to develop a relationship with learners throughout every stage of their lives. In order to support that goal, the Library Strategy Committee has been looking at the learning needs of the alumni of the College and considering the feasibility of conducting a needs assessment with alumni to determine if there is a strong interest in having access to electronic databases. If the needs assessment indicates there is strong interest among the alumni, the Library Strategy Committee will contact the database vendors to negotiate access for alumni. As Lynne Bentley, Director of Libraries, indicated, "It is important to maintain that contact [with alumni] over a period of time. Whatever kind of value-added services the library can provide to make Humber the college of choice is all for the greater good" (personal communication, August, 8, 2003).

Because Cascadia Community College is relatively new to the higher education arena, the work on integrating information literacy competencies into the course outcomes has not yet been completed. The competencies have been integrated into some of the course outcomes but not all. The work has been conducted through the College's curriculum committee, The Student Learning Council. Cynthia Fugate, Director, Campus Library & Media Center, indicated:

. . . right now we are in discussion [of] how best to make sure that this whole notion of scaffolding the information literacy program across the curriculum is implemented—whether it is better to have a required course or to have something linked to some of the core courses. (personal communication, August 1, 2003)

To dispel the long-standing confusion among the faculty about the definition of information literacy at CCBC, the Catonsville Campus has received a grant to enable the faculty to develop a definition of information literacy to which they can adhere. When that work has been completed and received administrative support, there are plans to conduct similar workshops at the other two campuses.

Lane Community College modified their Library 127 course to align with the ACRL's *Information Literacy Competency Standards for Higher Education* and the principles of the learning college. The College has plans to add an information literacy component to its general education requirements. Two colleges—Lane Community College and Valencia Community College—indicated that they have developed an online tutorial for information literacy.

Providing for the Learning Needs of Its Users

Although the Learning College Project focused on underprepared students, the libraries in the Vanguard Learning Colleges focused on providing for the learning needs of all of their users (See Appendix F.1b). Cascadia, Humber, MATC reported having a small number of underprepared students enrolled in their colleges. Reasons ranged from the stringent admissions requirements to the socio-economic status of their students.

Four libraries (33.3%) reported working with the staff of special programs to provide resources, services, and instruction to their students. Programs referenced in the interviews included Adult Basic Education; ESL, ESOL, EAP programs for non-English speaking students; and Developmental or Preparatory programs in mathematics, reading, and writing. In some cases, the library staff were trained by the program staff to work with their students; such was the case at Humber College and MATC.

Four libraries (33.3%) listed that they designed library instruction classes to meet the learning styles/needs of the students. Eight libraries (66.7%) reported that their staff developed special learning aids, such as library guides, online tutorials, and pamphlets to assist students in using the resources. At Palomar College, library staff have provided workshops, seminars, short courses, and one-on-one sessions to meet the learning needs of its learning community. Some examples of the open door seminars offered were MicroSoft FrontPage, Legal/Government Resources, and Electronic Information Resources.

Six libraries (50%) indicated that they acquire resources at the appropriate levels for their students. For example, Cascadia Community College and Valencia Community College have developed a recreational reading collection of adult popular literature that was at a lower reading level. The library administrators at Valencia Community College collaboratively developed a special budget initiative to acquire a textbook reserve collection for students who were unable to purchase textbooks for their courses. The justification for the request was that students who begin classes without a textbook fall seriously behind in their coursework. The College Planning Council granted their strategic budget initiative request; the result was that the textbook reserve collection has been extremely popular with the students. Although Humber College and MATC provided space for tutoring activities, Palomar College reported that tutoring was, organizationally, a part of the library operation.

Supporting Learning Outcomes Adopted by the College

Seven libraries (58.3%) listed some aspect of support for the learning outcomes adopted by their colleges (See Appendix F.1c). Five libraries (41.7%) reported that the access to resources and services from their webpages supported the learning outcomes of their colleges. Other types of support indicated were:

1. support of the core competencies adopted by their colleges (Cascadia Community College, Richland College, Valencia Community College)
2. assist students with presentations from designing, to taping, to reviewing of tapes to help students improve their presentation skills (Cascadia Community College, Valencia Community College)
3. aligned library's strategic plan with the college's strategic priorities (Moraine Valley Community College, Valencia Community College)
4. identified resources appropriate for learning outcomes (Sinclair Community College)
5. used course outlines to guide collection development and to customize library instruction (Humber College)

Providing Library Instruction

Library instruction was closely tied to information literacy in the libraries of the Vanguard Learning Colleges. An analysis from the telephone interviews and the archival data indicated that 91.6 % of the libraries in the Vanguard Learning Colleges reported that they provide library instruction (See Appendix F.1d). Library instruction was generally customized to meet the needs of the students within the context of the courses in which they were enrolled and was delivered either in a group or individual setting. In response to an identified need to streamline a disjointed library instruction program, the Auraria Library—CCD staff redesigned the library instruction curriculum and placed the program under the supervision of a senior reference librarian. Placing the library instruction program under the supervision of a senior reference librarian was supported by the literature review in which Fowler and Walter (2003) proposed that library

administrators complement the library staff by adding an instructional leader position for the purpose of leading the instructional program beyond the mundane management issues.

Richland College developed an exemplary library instruction program which included an assessment component. The program was organized into three parts—Knowledge Checker, Pre-Tests, and Active/Collaborative Learning (S. Jeser-Skaggs, personal communication, October 22, 2003). In Knowledge Checker, the librarians agreed to three key concepts to be taught in each of the five classes in the library's information literacy program and developed a 15-question quiz to measure student mastery of those key concepts. Students who passed the quiz received a certificate. The librarians tracked the overall success in answering the questions on the quiz from semester to semester. The Pre-Tests part of the library instruction program involved administering a short test to students prior to facilitating the library instruction class. The librarians have discovered that the pre-tests helped students to focus their attention on the content of the lesson. The Active/Cooperative Learning part of the library instruction program involved the use of cooperative techniques as an instructional strategy. The librarians incorporated a feedback loop in the instructional process so that they immediately knew whether the students understood the concepts presented in the lesson. Another instructional technique the librarians utilized was to ask students to write a question that they wanted the librarian to answer during class. This activity engaged students in the learning process by helping orient them to the topic of the library

instruction class. An excellent example of one-on-one assistance was the Term Paper Research Assistance Project (TRAP) at CCBC, in which students received a 30-minute appointment with a librarian.

Participating in Collaborative Activities to Improve and Expand Student Learning

All of the libraries in the Vanguard Learning Colleges participated in collaborative activities to improve and expand learning (See Appendix F.1e). All of the libraries reported that they have engaged in collaboration with faculty to develop the collection. The researcher was particularly interested in discovering what other types of collaboration were occurring in the libraries of the Vanguard Learning Colleges beyond the traditional faculty-librarian collaboration on collection development. All of the libraries reported collaborating with faculty to develop assignments that use the libraries' resources and to customize library instruction for their students. Another interesting fact emerged during the analysis of the data—all of the libraries reported that library staff served on collegewide committees.

Team teaching with faculty was reported by 33% of the libraries; for example, one of the librarians at Lane Community College developed an online learning community with another Social Science faculty to teach a course together. Four libraries (33.3%) assigned librarians to specific disciplines or departments as a liaison; of that, two libraries (16.7%) reported that these librarians regularly attended the discipline or departmental meetings. MATC and Sinclair Community College indicated that they

coordinate with the Art Department to display the artwork of students and local community artists. The CCBC posted faculty assignments on the library's server so that students had remote access to assignments.

MATC reported a totally unique form of collaboration—the Library Director has been working with one of the vice presidents on a knowledge management project as a way to organize all of the paper forms and other kinds of studies and surveys that have been done into an online database. As Kalleen Mortensen, the Library Director, stated, “It’s a big, big project; and it is just starting to get off the ground. I think that this particular administrator thought that we would be good people to get involved in it. As it turns out, we are good at organization—we have good organizational skills” (personal communication, July 17, 2003).

Utilizing Information Technology to Expand Access to Resources and Services

Of the libraries in the Vanguard Learning Colleges, 100 % use information technology to provide expanded access to resources and services for their learning communities (See Appendix F.1f). An information or learning commons located within the library was mentioned by 58.3% of the libraries in the Vanguard Learning Colleges. The information commons was developed to provide students with the convenience of completing an assignment with any assistance they needed in one location. As David Gleim, the Auraria Library Dean stated, “[in the past], if students wanted to complete a term paper, we had to send them out into the Denver cold to find a place for them to do

this. We were not meeting the needs of the students” (personal communication, July 9, 2003).

The libraries’ experiences with designing, developing, and maintaining effective websites which were user-friendly and provided access to online resources and services were reported by 50% of the libraries in the Vanguard Learning Colleges. At Moraine Valley Community College, the library’s website underwent a usability study in an effort to make it more learning-centered. Sylvia Jenkins, Dean Academic Development and Learning Resources, indicated, “we wanted to make sure that [our] website was fully understood by our students and [that] they could navigate and find the material they needed to find” (personal communication, July 14, 2003). At MATC, students voted the library’s website as the best website and the second most important web link that the students had at the College (K. Mortensen, personal communication, July 17, 2003). Another noteworthy website was that of the East Campus LRC at Valencia Community College which offered the option of viewing their webpages in Spanish.

MATC was unique among the libraries in the Vanguard Learning Colleges in that they housed, staffed, and maintained the main computer lab and provided technology support to the College. Kalleen Mortensen, Library Director, reported, “We take phone calls and obviously onsite student questions regarding all kinds of things from online course questions to Blackboard support to Novell login activation” (personal communication, July 17, 2003).

The libraries in two colleges—MATC and Sinclair Community College—reported that their libraries were part of a portal at their colleges. Sinclair Community College has encouraged all the faculty, staff, and students to use the portal as the conduit of all information on campus; the college has envisioned this portal to be a sort of one-stop shopping for all information needs of the campus (V. Peters & S. Kirkwood, personal communication, August 11, 2003).

Other types of information technology mentioned by the library administrators included: (a) creating online tutorials for research and information tools of the library, (b) providing 24 hours a day access to resources and services for users both on and off campus, (c) utilizing electronic classrooms to deliver library instruction, (d) providing wireless access for their users, (e) assisting faculty in designing online courses and (f) working with faculty to integrate technology into the curriculum to enhance teaching and learning.

Empowerment of Library Staff as Facilitators of Learning

Librarians received training to prepare them to implement the learning-centered principles into their work with faculty, staff, and students. Library staff received training to assist them with focusing on student learning. The empowerment of library staff to become facilitators of learning was comprised of three parts: (a) the recruitment process, (b) training of new hires, and (c) staff development activities for existing library staff.

The Recruitment Process

At the libraries in the Vanguard Learning Colleges, a major emphasis was placed on recruiting staff who had the potential to become effective facilitators of learning (See Appendix F.2a). Three libraries reported that their colleges redesigned the recruitment plan along the lines of the learning-centered principles. The variations in the recruitment process used by the libraries were as follows:

1. revised job description along learning-centered principles (Lane Community College, Moraine Valley Community College)
2. wrote questions to determine learning-centeredness of the applicants (Cascadia Community College, Kirkwood Community College, Lane Community College, MATC, Moraine Valley Community College, Valencia Community College)
3. advertised in diverse publications, such as webpages of professional organizations, local newspapers, and professional journals (Palomar College, Valencia Community College)
4. used a selection committee comprised of library staff and faculty (Cascadia Community College, Auraria Library—CCD, Humber College, Kirkwood Community College, Lane Community College, MATC, Palomar College, Richland College, Valencia Community College)
5. used interviews to determine applicants that moved forward in the process:
 - a. telephone interviews (Richland College, Valencia Community College)
 - b. interviewed all applicants (Cascadia Community College)
 - c. on site interviews (all libraries)
6. required a demonstration of performance exercise specific to position and/or teaching philosophy statement (Cascadia Community College, Auraria Library, CCBC, Lane Community College, MATC, Moraine Valley Community College, Richland College, Valencia Community College)

7. forwarded two to three names for further consideration for hiring (Lane Community College, Valencia Community College) or made hiring decision based on points scored in the interview (Auraria Library—CCD, Palomar College)
8. hired staff with subject expertise and/or customer service focus (CCBC, Humber College, MATC)

Palomar College had a recruitment process that was governed by the bargaining contract which placed contractual limitation on the process. Interview questions were allowed to come only from the job description which meant that job descriptions were rewritten before advertising to reflect student learning as an integral part of the position. During the interview, absolutely no follow up questions were allowed.

Training of New Hires

Once staff were hired, ensuring that they were learning-centered became important (See Appendix F.2b). Two libraries (16.7%)—Cascadia Community College and Richland College—implemented a mentoring program. MATC developed a resource guide for new staff. Richland College developed two programs to train new staff: First Year Faculty Experience and First Year Staff Experience. Four libraries (33.3%)—Kirkwood Community College, Richland College, Sinclair Community College, and Valencia Community College—held special orientations to introduce new staff to the learning-centered philosophy. Two libraries (16.7%)—Moraine Valley Community College, and Valencia Community College—listed inservice training as a method of ensuring new staff were learning-centered.

Staff Development Activities

In the libraries' journeys to become more learning-centered, staff development became instrumental to fuel the forward momentum for implementing change. All of the libraries participated in staff development activities designed to assist their staffs in making the transition to facilitators of learning (See Appendix F.2c). The staff development activities reported were:

1. all colleges created or expanded staff recruitment and development programs as part of the Learning College Project
2. library staff participated in annual learning days, and periodic workshops offered by their colleges (10 libraries 83.3%)
3. training offered to library staff only:
 - a. retreat (Palomar College, Richland College)
 - b. participated in League for Innovation in the Community College conferences (Cascadia Community College, Kirkwood Community College)
 - c. departmental workshops/meetings (Auraria Library—CCD, Lane Community College, Palomar College, Valencia Community College)
 - d. orientation and training on specifics of job and library's philosophy (Humber College)
 - e. discussions of articles in professional journals read by staff (Auraria Library—CCD, MATC, Palomar College)
 - f. encouraged staff to turn routine encounters with students into learning experiences (Cascadia Community College, Valencia Community College)
 - g. role playing (Cascadia Community College)
 - h. shared compliments about service provided by staff (Humber College)
 - j. library administrator works one-on-one with staff (Moraine Valley Community College, Palomar College)
 - k. cross-trained staff in library functions to strengthen library's ability to meet student user needs (Lane Community College)

4. staff evaluation process:
 - a. identified core learning-centered competencies as benchmarks for staff (Lane Community College, Richland College)
 - b. revamped performance evaluation process to align with learning-centered principles (Kirkwood Community College, Lane Community College)
 - c. frequent evaluations of new employees and internal transfers (Kirkwood Community College)

Strategic Planning and Assessment

All of the libraries reported that they conduct strategic planning and have an assessment plan (See Appendix F3). Primarily, the assessment plans were based on inputs (number of books, periodicals, etc. in the collection) and output (how many books were checked out, how many reference questions answered, etc.). In all endeavors at the Vanguard Learning Colleges, two key questions were applied:

1. How will (activity in question) improve and expand student learning?
2. How will we know it has?

Two libraries (16.7%)—Cascadia Community College and Valencia Community College—made reference to these questions during the interviews. The following variations on strategic planning and assessment were reported:

1. surveyed students and faculty on a regular basis (five libraries 41.7%)
2. used continual assessment from input from library instruction, workshop evaluations, virtual and paper suggestions box, and focus groups (nine libraries 75%)
3. received data from college-wide surveys (Humber College, MATC, Sinclair Community College)

4. used results to improve and expand resources and services (nine libraries 75%)

Marketing of Services and Resources

All of the libraries indicated that they promoted their resources and services to their learning communities (See Appendix F.4). The most popular form of promotion was via the libraries' webpages (100%). Eleven libraries (91.7%) listed outreach services to faculty, staff, and students as a type of promotion. All types of students were targeted for promotion—face-to-face users, non-users, and distance learning students. The Valencia Community College LRCs hosted several festivals and special celebrations to entice non-users to utilize their resources and services.

MATC provided an excellent example of a creative way to promote their resources and services. MATC librarians used laptop computers to present a five-minute overview of the library's resources and services in the classrooms. These sessions were designed to entice students into coming to the library for their information needs. Cascadia Community College, MATC, and Sinclair Community College cited writing a column or publishing their own newsletters as one way that they promoted their resources and services.

Facilities That Enable Learning to Occur

Six libraries (50%) listed facilities as a component of a learning-centered library (See Appendix F.5). Two libraries (16.7%)—Cascadia Community College and Humber

College—have a single point of service desk placed so that it is the first desk that students saw upon entering the library. The desk was staffed by librarians and other library staff. The advantage of the single point of service desk was that students “did not have to figure out whether they were asking a question about reserves or reference or technology” (C. Fugate, personal communication, August 1, 2003).

Other facilities comments included:

1. safe and welcoming environment (Lane Community College, MATC)
2. comfortable and attractive chairs and furniture (Auraria Library—CCD, Lane Community College, Valencia Community College)
3. food and drink (Cascadia Community College, Auraria Library—CCD, and Valencia Community College)

Benchmarking to Improve Resources and Services

Eight libraries (66.7%) listed benchmarking as an activity in which they participated (See Appendix F.6). The most often used form of benchmarking was the accreditation process yet only four libraries listed this type of benchmarking. Other types of benchmarking reported were:

1. meetings with local and state groups to discuss common problems/solutions (MATC, Richland College, Sinclair Community College, Valencia Community College)
2. a study of other libraries’ information literacy programs listed on websites (Richland College)
3. site visits to other libraries to look at facilities, staffing, and resources (Valencia Community College)

4. utilization of outside organizations that set standards for resources needed for degrees (Humber College, Sinclair Community College)
5. a study of the library organization structure for input for the redesign of the organizational structure of the library (CCBC)
6. research to develop a funding plan (Valencia Community College)

Data analysis of the responses to the interview question on benchmarking and the learning college literature demonstrated that benchmarking was an area in need of further development in the future.

Research Question 2

By their own definition, how did the libraries in the Vanguard Learning Colleges become more learning-centered?

Table 1 demonstrated that the most frequently occurring level of attainment of learning-centeredness (mode) by the libraries in the Vanguard Learning Colleges was 7. The mean of the distribution was 6.75, and the median of the distribution was 7.

Table 1

Statistics of the Level of Learning-Centeredness Attained by the Libraries in the Vanguard Learning Colleges

Mean	6.75
Median	7.00
Mode	7.00

Table 2 demonstrated that 16.7% of the libraries were rated as a 5 on level of learning-centeredness attained. At level 6, 25% of the libraries were rated as having attained this level of learning-centeredness. At level 7, 33.3% of the libraries were rated as having attained this level of learning-centeredness. At level 8, 16.7% of the libraries were rated as having attained this level of learning-centeredness. At level 9, 8.3% of the libraries were rated as having attained this level of learning-centeredness.

Table 2

Frequency Distribution of the Level of Learning-Centeredness Attained by the Libraries in the Vanguard Learning Colleges

Reported Level of Learning-Centeredness		Frequency	Percent
Valid	5	2	16.7
	6	3	25.0
	7	4	33.3
	8	2	16.7
	9	1	8.3
Total		12	100.0

The Journey

The library administrators employed various methods for moving their libraries along the path to becoming more learning-centered. The various activities fell under four categories related to staff, curriculum, library operations, and facilities (See Appendix G).

Staff-Related Activities

At Moraine Valley Community College, the focus was on preparing staff for the change. The library staff began by looking at the vocabulary of a learning college to see how it related to the strategic priorities they had already set for the library. The library administrator ensured that the staff understood the principles of a learning college. In addition, their librarians participated in college-wide discussions with faculty about developing new programs and services for students. At Kirkwood Community College, the library administrator focused on hiring practices for both librarians and staff, hiring staff with a strong service orientation, and putting emphasis of finding librarians with a desire and ability to teach evaluation and information skills (critical thinking). Humber College placed an emphasis on investing in human resources by ensuring that library staff were well-trained on customer service. At Palomar College, the library administrator instilled in the library staff the ideal of student learning and the importance of the learning-centered approach to working with students, helped the library staff focus on becoming teachers/mentors in looking at the student as a learner, held informal professional journals discussions, and helped the library staff learn how to turn every incident into a learning experience and tie it to student learning. Lane Community College, Moraine Valley Community College, and Palomar College all designed their staff development training programs based on the learning-centered principles.

Curriculum-Related Activities

Cascadia Community College integrated the information literacy program into the curriculum. At CCBC, the library staff worked with faculty to develop library instruction based on their students' different learning styles, developed webpages for faculty on the library server to store class assignments, offered ongoing sessions on database and Internet searching, and offered term paper assistance via their TRAP program. At Lane Community College, the library staff provided library experiences that actively engaged the students in their own processes in what works best for them and offered a three-credit course on information literacy competencies. At Palomar College, the library staff increased the number of orientations offered to students and introduced weekly open door information literacy sessions. At Sinclair Community College, the library staff implemented information literacy as part of the curriculum and encouraged faculty-librarian collaboration. At Valencia Community College, the library staff created a Spanish version of the webpage and added a Spanish leisure reading collection.

Library Operations-Related Activities

At Humber College, the library administrator carefully monitored user needs and expectations in order to measure how well the library was meeting user needs and continuously looked for ways to make improvements on existing services and facilities as time and funding permitted. At Lane Community College, the library staff integrated the departmental unit plan with the values of the learning college principles. At Palomar

College, the library staff developed new vision and mission statements to reflect their desire for the library to become a powerful learning environment not unlike the classroom and for their users to become efficient in using the tools of the library. Also, the library staff were clearly identified so that students could easily find assistance. The library administrators at Valencia Community College adjusted the hours of operation for the LRCs to address student needs.

Facilities-Related Activities

Cascadia Community College, Auraria Library—CCD, and MATC added an information commons in their libraries. Auraria Library—CCD also added a special use lab for students with disabilities. MATC and Richland College remodeled their libraries to make space for an electronic classroom for library instruction. Palomar College Library made the environment conducive for users to achieve their goals in using the library.

Next Steps

Near the end of the Learning College Project, each of the Vanguard Learning Colleges received a final evaluation visit from the staff of the League for Innovation in the Community College and Kay M. McClenney, the external evaluator. About the journey to become more learning-centered, McClenney observed: “The prevailing metaphor for the Learning College Project has been ‘the journey,’ emphasizing the

conviction that becoming a learning college involves a long-term and continuing commitment—a journey, not a destination” (2003a, ¶ 3).

The libraries in the Vanguard Learning Colleges have not yet completed their journeys to become more learning-centered; it will be an ongoing transformation for years to come. The library administrators were asked to respond to questions on what they need to become more learning-centered and what they needed to do to become more learning-centered. The following sections discuss their responses to these questions.

What Libraries Need to Become More Learning-Centered

The needs expressed by the library administrators were related to the following categories: staff and curriculum (See Appendix G.1). The most prominent need reported was more staff to handle growth; five libraries (41.7%) reported this as a high priority need. Other needs that focused on staff were:

1. more expertise among the staff in the whole concept of a learning-centered college (Cascadia Community College)
2. more staff focus placed on student needs (CCBC)
3. more targeted staff training (Humber College)
4. an understanding by the staff of where what they do fits into the learning college (Lane Community College)
5. staying abreast of technology changes (MATC)
6. staff buy-in (Richland College)

In the area of curriculum, Kirkwood Community College listed more opportunities for curriculum development and more involvement in the course approval process as its curriculum-related needs. MATC reported that curricular changes drove the need to request additional funding. Humber College stressed the need to be tied closely to the academic process. Other curriculum needs were:

1. continued improvement of library instruction (Humber College)
2. begin work on integrating information literacy and learning-centered principles into the library (Lane Community College)

Some of the needs were unrelated; therefore, the researcher categorized them under miscellaneous. CCBC indicated the importance of having a voice at the upper level of the college; while Moraine Valley Community College stressed the importance of continuous administrative support. Other miscellaneous needs reported were:

1. a systematic way to evaluate how well the library meets the needs of the students and make changes to address those needs (Auraria Library—CCD)
2. more funding for resources (Valencia Community College)

What Libraries Need to Do to Become More Learning-Centered

What libraries need to do to become more learning-centered primarily focused on assessment, library operations, and staff activities (See Appendix G.2). For assessment activities reported, six libraries (50%) expressed the need to develop or revise an assessment plan designed to determine how to collect data to provide better, more

targeted services to students. CCBC and Richland College reported the need to assess the library operation to determine where the library fits in the process. Richland College needed to ascertain how the library staff is improving and expanding learning. Other assessment activities the libraries needed to do included:

1. assessing the quality of customer service (Humber College)
2. conducting usability testing on the website to identify weaknesses and the direction of the redesign (Humber College)
3. implementing student evaluations of library instruction (Lane Community College)
4. having a joint meeting of all campus libraries to discuss needs assessment (CCBC)

For library operation activities reported, Cascadia Community College indicated institutionalization of the learning-centered concept into the library operation as an activity that needed to be done. At Humber College, the library administrator wanted to explore better ways of working with faculty, show faculty how the library can support them in their professional development activities, show faculty how the library can make them more effective users of information and better web searchers, better promote the services, inform the college community about college copyright policies, create a culture of service, and work more closely with the Counseling Department and the Career Center. CCBC wanted to work with faculty to reestablish the close academic working relationships that they had before the merger of the three community colleges into one college. Lane Community College wanted to increase collaboration with faculty to find

out what their students need, increase collaboration with students to find out what resources or services were helpful to them, increase the library's presence in the distance learning courses, and market available resources and services. Richland College wanted to establish closer working relationships with other parts of the college to solidify the function of facilitators of learning. Sinclair Community College wanted to determine how the library would administratively report.

For staff activities reported, Humber College needed to develop more expertise among the library staff in web design so that they would no longer have to contract for this service. Library staff at Richland College needed to conduct a self-education process to understand what it really means to be learning-centered. Moraine Valley Community College needed to offer continuing education for the library staff. Valencia Community College needed to offer more staff development training on the learning-centered principles so that the library staff can incorporate the principles even deeper into their work environments. Palomar College needed to hire more staff.

Other miscellaneous activities that needed to be done in order for the libraries to become more learning-centered were:

1. need to establish a standard ongoing materials budget to help improve planning in order to better meet the needs of the college in terms of resources (Cascadia Community College)
2. become more aware of the different learning styles and how to accommodate them in the library (CCBC)
3. readdress the needs of ESOL students and how to expand learning opportunities for them (Richland College)

4. complete the renovation plans to ensure the facility will be aligned with the learning-centered principles (Sinclair Community College)

Research Question 3

What opportunities presented themselves to the libraries in the Vanguard Learning Colleges as they arose to the challenge to become more learning-centered?

Organizational culture conducive to change and support of the college administration were the most frequently reported opportunities cited by the library administrators (See Appendix H). The three libraries who indicated that they took advantage of the organizational culture to assist their libraries to initiate change were Kirkwood Community College, Palomar College, and Valencia Community College. The three libraries who indicated that they utilized the support of the college administration to help their libraries to initiate change were Cascadia Community College, Humber College, and Valencia Community College.

The other opportunities reported by the library administrators focused on library operations, funding, students, staff, collaboration, facilities, and community involvement. In the area of library operations, the opportunities utilized by the library administrators to help move their libraries toward the goal of becoming more learning-centered were:

1. partnered with other groups to enable expanded collections, the hiring of staff, and improvement of the existing collections (Humber College)
2. showcased the library's role in the learning paradigm (Palomar College)
3. leveraged the library's historical role in teaching to position the library to promote life-long learning (Palomar College)

4. aligned the LRC goals to the learning-centered goals of the college (Valencia Community College)
5. used encounters with faculty and students as an opportunity to promote the resources and services (Valencia Community College)
6. leveraged the accreditation process to refocus the library operation on the learning-centered principles and increase funding (Lane Community College)
7. conducted strategic planning during periods of less demands for services (Lane Community College)
8. had access to a ready pool of librarians from the local library school (MATC)
9. developed new programs and services (Moraine Valley Community College)
10. revitalized the Reference Department in terms of resources and services (Valencia Community College)

The funding, students, staff, collaboration, facilities, and community involvement opportunities reported by the library administrators included:

1. received major funding in support of a degree initiative (Humber College)
2. received sufficient funding to support technology (MATC)
3. took advantage of statewide workshops and funding to implement information literacy project (Sinclair Community College)
4. student support and approval of the changes (CCBC)
5. diversity of the student body brought a great dynamic to the library (Valencia Community College)
6. hired new staff (Moraine Valley Community College)
7. further developed the learning-centered attitudes of library staff (Valencia Community College)

8. expanded existing faculty-librarian relationships (Sinclair Community College)
9. remodeled the library facility to be more learning-centered (MATC)
10. community petitioned the State Legislature to merge the colleges into institution (CCBC)

Research Question 4

What challenges did the libraries in the Vanguard Learning Colleges encounter on their journeys to become more learning-centered?

While six libraries (50%) reported coping with funding issues as the number one challenge in becoming more learning-centered, funding was at the heart of many of the other reported challenges (See Appendix I). Five libraries (41.7%) listed maintaining quality services to increasing users with existing or reduced staff. Four libraries (33.3%) reported that being learning-centered required time and strategic planning which, in turn, required more staff. Three libraries (25%) reported that the reorganization of the reporting structure on their campuses presented a major challenge to their progress toward becoming more learning-centered.

Other reported challenges to becoming more learning-centered were:

1. the design of the library created barriers to learning (CCBC, Humber College)
2. staff buy in to the idea of being a learning-centered library (Auraria Library—CCD, Moraine Valley Community College)
3. library support of the curriculum required for numerous programs that spread the funding too thinly (Humber College)

4. developing a learning-centered library program for ESOL and developing a library instruction program with greater flexibility to respond to changing needs (Richland College)
5. college did not require information competency for students at the department or discipline level (Palomar College)
6. finding creative ways to promote services (Valencia Community College)
7. loss of close faculty-librarian relationships due to retirements, resignations, and transfers caused by the merger of the colleges into one institution (CCBC)
8. providing for the information needs of a diverse student body (Humber College)
9. staff attitudes toward technology and resistance to change (MATC)
10. translating library successes into data that ensured continued budget support (Richland College)
11. finding effective ways to forward the learning-centered initiative beyond the library instruction program (Richland College)
12. lack of space for library instruction and lack of space for shelving (Valencia Community College)

Research Question 5

What were the salient differences in experiences in the journeys of the libraries in the Vanguard Learning Colleges to become more learning-centered?

Level of implementation of the learning-centered principles into the library was one of the key salient differences among the libraries in the Vanguard Learning Colleges. The difference can be attributed to the organizational culture at each institution. As the literature review revealed—in order for change to occur, the organization must be ready

for change. As discussed in Chapter 1, Owens (2001) presented a three-stage model of organizational change which began with unfreezing existing practices and behavior, followed by the development of new practices and behaviors, then institutionalization and standardization the newly developed practices and behaviors. The researcher discovered that the libraries in the Vanguard Learning Colleges were at different stages in the change process. During data analysis, a pattern emerged—the libraries that reported that the organizational culture was conducive to change predominantly had the most developed implementation of the learning-centered principles (stage three).

Another salient difference that emerged among the libraries in the Vanguard Learning Colleges during data analysis was in the scope and purpose of the libraries. Two of the libraries were joint use libraries and, organizationally, did not report to the community colleges which they served. Auraria Library in Denver served three institutions on one campus—the University of Colorado at Denver, Metropolitan State University, and the Community College of Denver. As David Gleim, the Dean of the Auraria Library stated:

By being administratively part of the University of Colorado at Denver . . . we are driven by the terminology and missions and strategic planning that is imposed on us by the university . . . We do not say learning-centered so much as outcomes assessment, but there is that sort of difference in approach.
(personal communication, July 9, 2003).

At Cascadia Community College, the library was operated by the University of Washington Libraries. The library served both the community college and the University

of Washington at Bothell which were collocated on the same campus. Cynthia Fugate, Director of Academic Services, indicated:

I think it's really been an evolutionary process because UWB does not call itself a learning organization, but it has a lot of the characteristics of a learning organization . . . so when we started working with Cascadia, we were already attuned to thinking about things from the perspective of learning at the center of what we do. (personal communication, August 1, 2003).

Another salient difference that arose during the data analysis concerned the selection of the library administrator at Moraine Valley Community College to serve on the College's Vanguard Project Team. Sylvia Jenkins, Dean of Academic Development and Learning Resources was the only library administrator to serve on a Vanguard Project Team. Jenkins reported:

Because I am also the library director, I used the information that I learned going through this project to implement new things in the library. It is important that colleges remember to include librarians on cross functional teams on their campuses because . . . we provide a very important and integral service to the college and to our students. I am glad that our administration had that insight. (personal communication, July 14, 2003)

Another salient difference that appeared during data analysis was in the area of assessment. It was apparent that the libraries collected large amounts of data; however, the data collected were primarily inputs and outputs. Kerry Connard, Manager, Learning Support Services at the Winter Park Campus of Valencia Community College, stated, "We are very good at collecting data, but what we need is more analysis of what we have collected; taking a look at the data to determine if we are meeting our goals and

objectives” (personal communication, July 31, 2003). Assessment was an area that many of the library administrators indicated needed to be improved. David Gleim stated:

We gather gobs of data—a lot of input data; it is raw use data. If you want to know how many instructional classes we taught for the community college, we have got all that nailed . . . but what would do us better is really to look more at the results. We do not quite have that. (personal communication, July 9, 2003).

Implications for Libraries

Beginning the Journey

For the colleges who embark upon the journey to become a learning college, the library administrators and staff could use the information on best practices and lessons learned by the libraries in the Vanguard Learning Colleges to guide their journeys. By studying the actions that the library administrators of the libraries in the Vanguard Learning Colleges took to move their libraries toward becoming more learning-centered, these library administrators could develop an implementation plan for their libraries. The common themes that arose from the compilation of the actions taken by the library administrators in the Vanguard Learning Colleges were, as follows:

1. **Staff Buy-in:** Several library administrators stressed the importance of getting the staff to buy into the idea of becoming more learning-centered. Without the staff support, the initiative will not be successful.
2. **Administrative Support:** Having the support of the upper level administrators was listed as crucial to the successful implementation of the learning-centered principles into the library operation.

3. Training: Helping staff understand the concepts behind the learning college and the role that they play in the learning process was deemed to be important to the successful implementation of the learning-centered principles. Having staff make the connection between their existing responsibilities and how they can turn these responsibilities into a learning experience was also key to a successful implementation of the learning-centered principles.
4. Communication: Frequent opportunities for feedback helped to keep the momentum going in implementing the learning-centered principles into the library operation.
5. Organizational Structure: Because the organizational structure determines the flow of information and the reporting structure, the library administrators deemed that the organizational structure contributed to the success of the implementation of the learning-centered principles into the library operation.
6. Strategic Planning: The library administrators stressed the importance of establishing goals that aligned with the strategic learning-centered goals of the college and moved the library forward in its implementation plan.
7. Assessment Plan: An effective assessment plan has inputs, outputs, and outcomes that support the outcomes that the college has adopted.

Sharing Best Practices

During the course of the telephone interviews, the researcher received many requests to share the results of the case study with the library administrators. As Lynne Bentley, Library Director at Humber College, stated, “if you could share any preliminary conclusions or summaries from your research, it would give me some ideas to spark off of” (personal communication, August 7, 2003). This request demonstrated that the sharing of best practices among the Vanguard Learning Colleges had not reached the

departmental or unit level. It would be very beneficial for these libraries to develop a method by which they could share ideas.

Assessment Practices

Assessment of learning outcomes has become the next focus of the Vanguard Learning Colleges. To support the focus on assessment of outcomes, the libraries in the Vanguard Learning Colleges must rethink the procedures they utilize for assessing the effectiveness of their resources and services. Further validation of this need can be found in the draft of ACRL *Standards for Libraries in Higher Education* (2003) which stated:

Earlier standards for libraries relied heavily upon resource and program “inputs” such as financial support, space, materials and staff activities. . . These new standards continue to consider “inputs,” but they also take into consideration “outputs” and “outcomes” . . . These standards provide both a quantitative and a qualitative approach to assessing the effectiveness of a library and its librarians. They advocate the use of input, output, and outcome measures in the context of the institution's mission statement. They encourage comparison of these measures with those of peer institutions; they provide statements of good library practice; and they suggest ways to assess that practice in the context of the institution's priorities. (¶¶ 1-2)

Recommendations For Further Study

Analysis of the data identified additional areas of study needed and the following recommendations for future research are suggested:

1. This study could be replicated with a larger target population. An excellent target population would be the libraries in the Champion Colleges. Champion Colleges

were a part of the second tier of the Learning College Project. The 62 Champion Colleges joined the Learning College Project in order to “participate through special projects and web-based activities . . . [These colleges represented an] emerging international community of learners dedicated to sharing best practices and lessons learned in their individual journeys toward becoming more learning-centered institutions” (Learning College Project: Champion Colleges,” 2003, ¶ 1).

2. The results from Research Question 1 could be used to develop a qualitative survey instrument of indicators of a learning-centered library and administered to a representative sample of community colleges in North America. The library administrators in the sample would be asked to rate each item twice. First, they would place a value on the importance of each item as it applied to a learning-centered library; then, they would rate the level of each item's presence in their libraries.

3. The results from the above qualitative instrument could lead to the development of a self-evaluation checklist that a library administrator could utilize to assess the library before embarking on the journey to become more learning-centered. This self-evaluation would help to focus the staff's efforts on strategic planning. If the learning college concept spreads to the universities, the self-evaluation checklist could be adapted for the university level.

4. An excellent study would be to analyze the regional and national accreditation standards for libraries to determine their effectiveness in assisting libraries to become more learning-centered.

APPENDIX A
COVER LETTER

July 2003

Dear (mail merge):

My name is Linda Swaine, Manager, Learning Support Services of the Osceola Campus of Valencia Community College. I am a doctoral student in the Educational Research, Technology & Leadership Department of the College of Education at the University of Central Florida. I am currently conducting a case study of the libraries in the Vanguard Learning Colleges.

The subject of my research and dissertation is to chronicle the journeys of the libraries in the Vanguard Learning Colleges to become more learning-centered and to report best practices of these libraries. The results of this study will assist other library administrators in the future who are leading their libraries on the journey to become more learning-centered. I plan to conduct telephone interviews and analyze archival data, such as the library mission statement, planning documents, policies, survey instruments, and your college's data from the Academic Library Survey, for this case study.

Since Valencia Community College has multiple libraries, you have been selected to be the spokesperson for these libraries; however, your participation is strictly voluntary. Each person interviewed will have an opportunity to review and correct the information collected during the course of his/her interview, and data collected will not identify any individuals except in the voluntary disclosure of the name of the person being interviewed. A copy of the Informed Consent Response Form is included with this letter. For further information about this study, please contact my advisor, Dr. Mary Ann Lynn by phone at 407-384-2193 or email to malynn@mail.ucf.edu. For questions about your rights in this study, contact Chris Grayson, Coordinator of the University of Central Florida Institutional Review Board by phone at 407-823-9001 or email to cag86399@mail.ucf.edu.

I anticipate that the telephone interviews will take approximately 1 – 1 ½ hours. Please contact me by phone at 321-697-4156 or email to lswaine@valenciac.edu to let me know your availability for a telephone interview during the month of July 2003 or early August 2003. A copy of the interview questions will be emailed to you in advance of the scheduled interview. In addition, please either email or fax copies of the library mission statement, planning documents, policies, and survey instruments. My fax number is 321-697-4280.

Thank you for your time and consideration. It is only with the generous help of dedicated professionals like you that this research can be successful.

Sincerely,

Linda Swaine,
Manager, Learning Support Services

Informed Consent

Please sign this form and fax it to my attention at 321-697-4280. Thank you.

_____ I have read the procedure described above.

_____ I voluntarily agree to participate in the procedure.

_____/_____
Participant's Name Date

_____ I would like to receive a copy of the transcription of the telephone interview.

_____ I would not like to receive a copy of the transcription of the telephone interview.

APPENDIX B

FOLLOW UP EMAIL MESSAGE

I would like to schedule a telephone interview with you next week to ask you some questions I've developed from the objectives of the Learning College Project from the League for Innovation in the Community College.

Please email dates/times you would be available for an interview. For your convenience, I've attached a copy of the interview questions.

Linda Swaine

Email address: lswaine@valenciaccc.edu

Work phone: (321) 697-4156

APPENDIX C

INTERVIEW QUESTIONS

1. What activities have you undertaken in your role as library administrator to achieve the goal of the library becoming more learning-centered? What challenges and opportunities did you encounter as you sought to achieve this goal?
2. On a scale of 1 to 10 with 1 being lowest and 10 being highest, how learning-centered is your library? What do you need to become more learning-centered? What do you need to do to become more learning-centered?
3. How does your library fit into the context of the college's strategic learning plan?
4. How has being a Vanguard Learning College made a difference in your library?
5. What do you consider to be 2-3 examples of your best learning-centered practices? What is the basis or criteria upon which these examples were selected?
6. Describe your recruitment and hiring procedures for library personnel. How do you ensure that new staff members are learning-centered?
7. Please give examples of activities that were provided to specifically prepare your staff to be more effective facilitators of learning.
8. Has the library staff worked cross-functionally with other parts of the college, beyond the traditional faculty-library relationship? Please provide 2-3 examples of these relationships.
9. How has information technology supported student learning? How do you know? What are you doing to ensure that your students are information literate?
10. What resources do you offer to underprepared students? How has this contributed to their success? How do you know?
11. How does your library contribute to or support the learning outcomes that your college has adopted?
12. What data do you collect? How is the data used? How do you know this is the most relevant data to gather? What additional or different data would better help identify ways that the library is improving and expanding student learning?
13. Please describe your assessment process/plan for your library. What do you do with the results of the assessment?

14. Have you participated in benchmarking with other libraries or outside organizations?
If so, which libraries or outside organizations did you use? In what areas did you benchmark? How did this help your library improve?

APPENDIX D

PANEL OF EXPERTS AND TIMELINE FOR DEVELOPMENT OF TELEPHONE INTERVIEW QUESTIONS

Panel of Experts

Dr. Doug Cross, Dean of Library Services, Walters State Community College

Joanne Bellovin, Director of the LRC, Central Florida Community College

Dr. Mem Stahley, Campus Associate Director & Head of Partnership Library Services,
the University of Central Florida

Linda McCarthy, Assistant Director for Library Services, College Center for Library
Automation

Cathleen Armstead, Program Manager Quality Assurance, Research & Planning
for Orange County Head Start

Cynthia Wilson, Vice President, Learning & Research, League for Innovation in the
Community College

Timeline for Development of Telephone Interview Questions

February 2003	Developed potential telephone interview questions based on the objectives of the Learning College Project
Late February 2003	Contacted potential panelists concerning their participation in the development of the telephone interview questions
March 2003	Sent a copy of the telephone interview questions to colleagues who agreed to serve on the panel of experts
Late March – early April 2003	Received input from the panel of experts
April – May 2003	Revised interview questions based on input from the panel of experts
June 12, 2003	Piloted telephone interview questions with a Valencia Community College library administrator
June 14, 2003	Revised questions based on feedback from interview on the piloted telephone interview questions

APPENDIX E

IRB HUMAN SUBJECTS PERMISSION LETTER



Office of Research

July 3, 2003

Linda Swaine
1237 Hancock Circle
St. Cloud, FL 34769

Dear Ms. Swaine:

With reference to your protocol entitled, "A Case Study of Libraries in the 12 Vanguard Learning Colleges," I am enclosing for your records the exempt, executed document of the UCFIRB Form you had submitted to our office.

Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

A handwritten signature in black ink, appearing to read "Chris Grayson".

Chris Grayson
Institutional Review Board (IRB)

Copies: Dr. Mary Ann Lynn
Dr. Douglas Magann
IRB File

Office of Research
12443 Research Parkway Suite 207 • Orlando, FL 32826-3252
407-823-3778 • FAX 407-823-3299
An Equal Opportunity and Affirmative Action Institution

APPENDIX F

RESEARCH QUESTION 1 DATA

What is a learning-centered library from the perspective of the libraries in the Vanguard Learning Colleges?

Legend:

C=Cascadia Community College
CCBC=Community College of Baltimore County
CCD=Community College of Denver,
HC=Humber College
K=Kirkwood Community College
L=Lane Community College
MATC=Madison Area Technical College
MV=Moraine Valley Community College
PC=Palomar College
RC=Richland College
S=Sinclair Community College
V=Valencia Community College.

F. A Learning-Centered Library:

F. 1. Supports the Teaching and Learning Processes of the College

F.1a. Promotes Information Literacy

Promotes information literacy:												
facilitates information literacy skills through library instruction classes				HC	K	L	MATC	MV	PC	RC		V
offers an information literacy credit course					K	L		MV				V
information literacy program is integrated into curriculum/core competencies	C	CCBC	CCD		K	L	MATC	MV			S	
promotes life-long learning	C	CCBC	CCD	HC	K	L		MV		RC	S	V

F.1b. Provides for the Learning Needs of Students and Faculty

Provides for the learning needs of students and faculty:									
works with staff of special programs to provide resources, services, and instruction to their students	C			K	L			RC	
designed library instruction classes to meet the learning styles/needs of the students		CCBC					MV	RC	V
developed special learning aids	C	CCBC		HC	K	L		MV	RC V
acquires resources at appropriate level	C			HC	K			RC	S V

F.1c. Supports Learning Outcomes Adopted by the College

Supports learning outcomes adopted by the college:									
user-friendly webpage provides access to resources and services				HC	K	MATC	MV		V
supports core competencies	C							RC	V

F.1d. Provides Library Instruction

Provides library instruction													
collaboratively develops customized library instruction to meet the needs of the students	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC			V

F.1e. Participates in Collaborative Activities to Improve and Expand Student Learning

Participates in collaborative activities to improve and expand student learning													
engages in collaborative activities with faculty to develop the collection	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S		V
collaborates with faculty to develop assignments and customize library instruction	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S		V
assigns librarians to specific disciplines or departments			CCD			L			PC				V

F.1f. Utilizes Information Technology to Expand Access to Resources and Services

Utilizes information technology to expand access to resources and services													
provides information technology to expand access to resources and services	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S	V	
provides an information or learning commons for students to access resources and services	C		CCD	HC		L	MATC			RC		V	
website designed along learning-centered principles				HC	K	L	MATC	MV	PC			V	

F.2. Empowers Library Staff To Be Facilitators of Learning

F.2a. The Recruitment Process

The recruitment process												
revises job descriptions to reflect learning-centered principles						L			MV			V
writes questions designed to determine learning-centeredness of applicants	C					K	L	MATC	MV			V
advertises in diverse publications										PC		V
uses a selection committee	C		CCD	HC	K	L	MATC			PC	RC	V
onsite interviews	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S	V
requires demonstration of exercise appropriate to position	C	CCBC	CCD			L	MATC	MV		RC		V
forwards 2-3 names for further consideration						L						V
hires staff with subject expertise and/or customer service focus		CCBC		HC			MATC					

F.2b. Training of New Hires

Staff training for new hires												
has a mentoring program	C									RC		
holds special orientations on the learning-centered principles for new staff					K					RC	S	V
inservice training ensures new staff are learning-centered								MV				V

F.2c. Staff Development Activities

Staff development activities												
expands or creates staff recruitment and development programs	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S	V
staff participate in annual learning days		CCBC		HC	K	L	MATC	MV	PC	RC	S	V
training specifically offered to library staff	C		CCD	HC	K	L	MATC		PC	RC		V
revised staff evaluation process					K	L				RC		

F.3. Conducts Strategic Planning and Assessment

Conducts strategic planning and assessment													
has a strategic plan and an assessment plan	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S	V	
asks: How will this activity improve and expand learning? How do we know?	C												V
uses continual assessment	C	CCD		HC	K		MATC	MV		RC	S	V	
receives data from college-wide assessments				HC			MATC				S		
uses results to improve and expand resources and services	C	CCBC	CCD	HC	K		MATC	MV		RC		V	

F.4. Markets Its Services and Resources to Its Learning Community

Markets services/resources:													
promotes services and resources to the learning community	C	CCBC	CCD	HC	K	L	MATC	MV	PC	RC	S	V	
offers outreach services	C		CCD	HC	K	L	MATC	MV	PC	RC	S	V	

F.5. Has Facilities That Are Welcoming and Conducive to the Learning Needs of Its Users

Facilities are welcoming and conducive to learning									
considers facilities to be a component of learning-centeredness	C		CCD	HC	L	MATC			V
has single point of service desk	C			HC					
safe, welcoming environment					L	MATC			
comfortable, attractive furniture and seating			CCD		L				V

F.6. Uses Benchmarking with Peer Libraries and Organizations to Improve Its Resources and Services

Benchmarks with peer libraries or other organizations					
accreditation		K	L	S	V
meets with local and state groups to discuss common problems			MATC	RC	S V
studied information literacy programs, budgets, and organizational structures of other libraries	CCBC			RC	V
site visits to other libraries					V
outside organizations		HC		S	

APPENDIX G

RESEARCH QUESTION 2 DATA

By their own definition, how did the libraries in the Vanguard Learning Colleges become more learning-centered?

G.1. What Libraries Need to Become More Learning-Centered?

Needs						
more staff to handle growth		CCBC		L	PC	S V
other staff related needs	C	CCBC	HC	L	RC	
keeping up with technology changes					MATC	
continued improvement of library instruction			HC			
need to merge information literacy and learning-centered principles				L		
a systematic way to evaluate the library program			CCD			
more funding for resources						V

G.2. What Libraries Need to Do to Become More Learning-Centered

G2a. Assessment Activities

Need To Do:										
assessment activities	C	CCBC	HC	K	L			RC	S	
library operations activities	C	CCBC	HC		L			RC	S	
staff activities	C	CCBC	HC				MV	PC	RC	V

APPENDIX H

RESEARCH QUESTION 3 DATA

What opportunities presented themselves to the libraries in the Vanguard Learning Colleges as they arose to the challenge to become more learning-centered?

H. Opportunities That Helped Libraries Become More Learning-Centered

Opportunities									
opportunities related to organizational culture			K			PC			V
support of college administration	C		HC						V
opportunities related to library operation			HC	L	MATC	MV	PC		V
funding, students, staff, collaboration, facilities and community involvement opportunities		CCBC	HC		MATC	MV		S	V

APPENDIX I

RESEARCH QUESTION 4 DATA

What challenges did the libraries in the Vanguard Learning Colleges encounter on their journeys to become more learning-centered?

I. Challenges to Libraries Becoming More Learning-Centered

Challenges							
coping with funding issues	CCBC	CCD	K		PC	RC	V
maintaining quality services	CCBC	CCD			PC	S	V
time and staff needed to implement learning-centered principles	CCBC		HC	L		S	
reporting structure			K	MATC		S	
challenges related to facilities	CCBC		HC				
challenges related to library operations			HC		PC	RC	V
challenges related to staff		CCD		MATC	MV		

APPENDIX J
LIBRARY STATISTICS

Library Statistics for the Vanguard Learning Colleges

College	Books	Periodical Subscriptions	Total Library Staff	MLS Staff
Cascadia Community College	47,000	2,234	35	13
Community College of Baltimore County	227,975	1,297	47.5	11.5
Community College of Denver	622,000	3,083	NA	25
Humber College	108,421	1,185	28	6
Kirkwood Community College	75,685	662	16	8
Lane Community College	66,718	215	14	5
Madison Area Technical College	62,000	900	32	5
Moraine Valley Community College	77,731	553	30	15
Palomar College	108,400	900	NA	5
Richland College	91,000	210	19	8
Sinclair Community College	146,606	576	NA	7
Valencia Community College	149,934	842	47.5	18.5

Source: *American Library Directory 2003-2004*

APPENDIX K
CONTACT INFORMATION

Name	College	Email	Telephone
Cynthia Fugate	Cascadia Community College	CFugate@bothell.washington.edu	(425) 352-5345
Mary Landry	Community College of Baltimore County	mlandry@ccbcmd.edu	(410) 455-4589
David Gleim	Community College of Denver	David.Gleim@cudenver.edu	(303) 556-2805
Lynne Bentley	Humber College	lynne.bentley@humber.ca	(416) 675-6622 x 4574
Arron Wings	Kirkwood Community College	arron.wings@kirkwood.edu	(319) 398-5403
Nadine Williams	Lane Community College	williamsn@lanecc.edu	(541) 463-5824
Kalleen Mortensen	Madison Area Technical College	KMortensen@matcmadison.edu	(608) 246-6633
Sylvia Jenkins	Moraine Valley Community College	jenkins@morainevalley.edu	(708) 974-5294
George Mozes	Palomar College	gmozes@palomar.edu	(760) 744-1150 x 2848
Sharlee Jeser Skaggs	Richland College	jeser-skaggs@dcccd.edu	(972) 238-6082
Sonja Kirkwood	Sinclair Community College	sonya.kirkwood@sinclair.edu	(937) 512-3005
Kerry Sullivan	Valencia Community College	ksullivan@valenciaccc.edu	(407) 299-5000 x 6815

LIST OF REFERENCES

- About the League*. (2003). Mission Viejo, CA: League for Innovation in the Community College. Retrieved March 7, 2003, from http://www.league.org/league/about/about_main.htm.
- Accrediting organizations in the U.S.: How do they operate to assure quality? Fact sheet #5*. (2002, December). Washington, DC: Council for Higher Education Accreditation.
- ACRL College and Research Libraries Standards Task Force. (2003, May). Standards for libraries in higher education: A draft. *College & Research Libraries News*, 64(5), 329-336.
- ACRL Institute for Information Literacy. (2003, September). Characteristics of programs of information literacy that illustrate best practices: A guideline. *College & Research Libraries News*, 64(8), 544-547.
- ACRL Model Statement of Objectives Task Force. (2001). *Objectives for information literacy instruction: A model statement for academic librarians*. Retrieved July 8, 2003, from http://www.ala.org/Content/NavigationMenu/ACRL/Standards_and_Guidelines/Objectives_for_Information_Literacy_Instruction_A_Model_Statement_for_Academic_Librarians.htm.
- ACRL Standards Committee. (2000). *Information literacy competency standards for higher education*. Chicago, IL: American Library Association. Retrieved July 12, 2003, from <http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.htm#ilhed>.
- ACRL Task Force on Academic Library Outcomes Assessment. (1998, June 27). *Academic library outcomes assessment report*. Retrieved October 18, 2003, from http://www.ala.org/Content/NavigationMenu/ACRL/Publications/White_Papers_and_Reports/Task_Force_on_Academic_Library_Outcomes_Assessment_Report.htm.
- American Library Association. (1989, January 10). *Presidential committee on information literacy: Final report*. Retrieved July 8, 2003, from http://www.ala.org/Content/NavigationMenu/ACRL/Publications/White_Papers_and_Reports/Presidential_Committee_on_Information_Literacy.htm.

- American library directory; a classified list of libraries in the United States and Canada*, with personnel and statistical data. (2003). New York: R. R. Bowker.
- Barr, R. B. & Tagg, J. (1995, November/December). From teaching to learning—a new paradigm for undergraduate education. *Change*, 27, 12-25. Retrieved May 24, 2003, from FirstSearch database.
- Blixrud, J. C. (2000, December). Establishing a role for research libraries in learning outcomes assessment programs. *ARL*, (213), 1.
- Bodi, S. (1990, March). Teaching effectiveness and bibliographic instruction: The relevance of learning styles. *College & Research Libraries*, 51(2), 113-119.
- Bolman, L. G. & Deal, T. E. (1997). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass Publishers.
- Bosman, E. & Rusinek, C. (1997, Spring). Creating the user-friendly library by evaluating patron perceptions of signage. *Reference Services Review*, 25(1), 71-82).
- Brain-based learning*. (n.d.). Retrieved July 28, 2003, from <http://ss.uno.edu/ss/theory/BrainBased.html>.
- Caine, R. N. and Caine, G. (1990, October). Understanding a brain-based approach to learning and teaching. *Educational Leadership*, 48(2), 66-70.
- Cascadia Community College. (2004). *Learning outcomes*. Retrieved February 12, 2004, from <http://www.cascadia.ctc.edu/LearningForTheFuture/learningoutcomes.asp>.
- Cascadia Community College. (2002). *Self study for consideration of accreditation candidacy*. Bothell, WA: Cascadia Community College.
- Cascadia Community College Vanguard. (2003). *Learning-centered interviewing process*. Retrieved August 6, 2003, from <http://www.cascadia.ctc.edu/vanguard/StaffRecruitment/interviewing.asp>.
- Cawthorne, J. E. (2003, November). Integrating outreach and building relationships. *College & Research Libraries News*, 64(10), 666-669.
- Changes in higher education*. (2003). Lisle, IL: Pacific Crest, Inc. Retrieved May 30, 2003, from <http://pcrest.com/changes.htm>.

- Chickering, A. W. & Gamson, Z. F. (1999, Winter). Development and adaptations of the seven principles for good practice in undergraduate education. *New Directions for Teaching and Learning*, (80), 75-81.
- Chickering, A. W. & Gamson, Z. F. (1987, March). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, 39(7), 3-7. Retrieved August 18, 2003, from <http://aahebulletin.com/public/archive/sevenprinciples1987.asp>.
- Cohen, A. M. (2003). *The American community college (4th ed.)*. San Francisco, CA: John Wiley & Sons, Inc.
- Community College of Denver. (2003). *Vanguard Learning College Project*. Retrieved July 8, 2003, from <http://ccd.rightchoice.org/vanguard/VANintroduction.html>.
- Council for Higher Education Accreditation. (2003). *Informing the public about accreditation*. Retrieved September 20, 2003, from http://www.chea.org/public_info/index.cfm.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Cross, K. P. (1999, June). *Learning is about making connections: Cross paper number 3*. Mission Viejo, CA: The League for Innovation in the Community College.
- Cummings, T. G. (Ed.). (1980). *Systems theory for organization development*. Chichester, England: John Wiley & Sons.
- Dalrymple, C. (2002, May). Perceptions and practices of learning styles in library instruction. *College & Research Libraries*, 63(3), 261-273. Retrieved June 10, 2003, from FirstSearch database.
- Davis, M. E. & Petrowski, M. J. (2003). History of ACRL. Retrieved September 26, 2003, from http://www.ala.org/Content/www.ala.org/Content/NavigationMenu/ACRL/About_ACRL/Resources_for_Working_with_ACRL/Guide_to_Policies_and_Procedures2/Chapter_15_History.htm. (Reprinted from *Encyclopedia of Library and Information Science*, pp. 163-172, 2003, New York: Marcel Dekker, Inc.).
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method (2nd ed.)*. New York: John Wiley & Sons, Inc.

- Dormant, D. (1997). Planning change: Past, present, future. In R. Kaufman, S. Thiagarajan, & P. MacGillis (Eds.). *The guidebook for performance improvement: Working with individuals and organizations* (pp. 429-467). San Francisco, CA: Pfeiffer.
- Dowler, L. (Ed.) (1997). *Gateways to knowledge: The role of academic libraries in teaching, learning, and research*. Cambridge, MA: The MIT Press.
- Doyle-Wilch, B. & Miller, M. I. (1992). Mediation and schemata theory in meaningful learning: The academic librarian's role in the educational process. In M. K. Ewing & R. Hauptman (Eds.). *The Reference librarian and implications of mediation* (pp. 121-127). New York, NY: Haworth Press.
- Drucker, P. F. (1992, September-October). The new society of organizations. *Harvard Business Review*, 70(5), 95-105.
- Ducas, A. M., & Michaud-Ostryk, N. (2003, January). Toward a new enterprise: Capitalizing on the faculty/librarian partnership. *College & Research Libraries*, 64(1), 55-74.
- Dugan, R. E. & Hernon, P. (2002, November). Outcomes assessment: Not synonymous with inputs and outputs. *Journal of Academic Librarianship*, 28(6), 376-380. Retrieved August 14, 2003 from Academic Search Premier database.
- The early history of the Higher Education Act of 1965*. (n.d.). Retrieved July 31, 2003, from <http://trioprograms/clearinghouse>.
- Eaton, J. S. (1999). *An overview of U.S. accreditation*. Washington, DC: Council for Higher Education Accreditation.
- Elmborg, J. K. (2002). Teaching at the desk: Toward a reference pedagogy. *portal: Libraries and the Academy*, 2(3), 455-464.
- Evans, R. (2001, January). Faculty and reference librarians: a virtual dynamic duo. *T.H.E. Journal*, 28(6), 46-51. Retrieved May 14, 2003, from FirstSearch database.
- Faas, L. (Producer). (1998). *The learning paradigm* [Motion Picture]. (Available from Educational Television at Palomar College, 1140 West Mission Road, San Marcos, California 92069-1487).

- Faas, L. (Producer). (2000). *The learning paradigm: An update* [Motion picture]. (Available from Educational Television at Palomar College, 1140 West Mission Road, San Marcos, California 92069-1487).
- Flynn, W. J. (2003, January). The learning decade. *Learning Abstracts*, 6(1), unp. Retrieved May 25, 2003, from <http://league.org/publications/abstracts/Learning/lelabs0301.htm>.
- Fowler, C. S., & Walter, Scott. (2003, July/August). Instructional leadership: New responsibilities for a new reality. *College & Research Libraries* 64(7), 465-468.
- Glatthorn, A. and Fox, L. (1996). *Quality teaching through professional development*. Thousand Oaks, CA: Corwin Press.
- Gorman, M. (2000). *Our enduring values: Librarianship in the 21st century*. Chicago, IL: American Library Association.
- Gratch-Lindauer, B. (2002, January/March). Comparing the regional accreditation standards: Outcomes assessment and other trends. *The Journal of Academic Librarianship*, 28(1/2), 14-25.
- Gratch-Lindauer, B. (2000). *Measuring what matters: A library/LRC outcomes assessment manual*. Fairfield, CA: Learning Resources Association of California Community Colleges.
- The great society*. (n.d.). Retrieved August 3, 2003, from <http://www.pbs.org/johngardner/chapters/4c.html>.
- Gresham, K. (2001, Spring). Experiential learning theory, library instruction, and the electronic classroom. *Colorado Libraries*, 27(1), 19-22.
- Gross, J., & Kientz, S. (1999, October). Collaborating for authentic learning. *Teacher Librarian*, 27(1), 21-25. Retrieved May 1, 2003, from ProQuest database.
- Guskin, A. E. (1996, July/August). Facing the future. *Change*, 28, 26-37. Retrieved March 22, 2003, from FirstSearch database.
- Harris, M. H. (1995). *History of libraries in the western world* (4th ed.). Lanham, MD: The Scarecrow Press.

- Harvey-Smith, A. B. (2003, July). A framework for transforming learning organizations: Proposing a new learning college principle. *Learning Abstracts*, 6(7), unp. Retrieved August 2, 2003, from <http://www.league.org/publication/abstracts/learning/lclabs0307.htm>.
- Hayes, L. S. (1999, January). Education for the future. *Information Outlook*, 3(1), 5-6.
- Ideal characteristics & principles of the learning college*. (n.d.). Mission Viejo, CA: League for Innovation in the Community College.
- Jeffries, S. (1999). The librarian as networker: setting the standard for higher education. In D. Raspa & D. Ward (Eds.). *The collaborative imperative: Librarians and faculty working together in the information universe* (pp. 114-129). Chicago, IL: The American Library Association.
- John Gardner: Engineer of the great society..* (n.d.). Retrieved August 3, 2003, from <http://www.pbs.org/johngardner/chapters/4.html>.
- Jones, T. (1997). *Carnegie libraries across America: A public legacy*. New York, NY: John T. Wiley & Sons, Inc.
- Kasowitz-Scheer, A and Pasqualoni, M. (2002, June). Information literacy instruction in higher education: Trends and issues. *ERIC Digest*, unp.
- Kent, F. & Myrick, P. (2003, April). How to become a great public space. *American Libraries*, 34(4), 72-74, 76.
- Kirkwood Community College. (2000). Vanguard learning objectives and Kirkwood project plans. Retrieved Feb. 1, 2004, from <http://www.kirkwood.cc.ia.us/vanguard/plans/index.html>.
- Kuh, G. D. & Gonyea, R. M. (2003, July). The role of the academic library in promoting student engagement in learning. *College & Research Libraries*, 64(4), 256-282.
- Lampert, L. D. (2003, April). Who's afraid of partnerships for information literacy initiatives? Working together to empower learners. *College & Research Libraries News*, 64(4), 246-248, 253.
- The Learning College Project*. (2003). Mission Viejo, CA: League for Innovation in the Community College. Retrieved February 28, 2003, from <http://league.org/league/projects/lcp/index.htm>.

The Learning College Project: Champion Colleges. (2003). Mission Viejo, CA: League for Innovation in the Community College. Retrieved March 1, 2003, from <http://league.org/league/projects/lcp/champions.htm>.

The Learning College Project: Vanguard Colleges. (2003). Mission Viejo, CA: League for Innovation in the Community College. Retrieved March 1, 2003, from <http://league.org/league/projects/lcp/vanguard.htm>.

Learning first 2-0 transform. adapt. succeed: Strategic plan the next five years 2004-2008. (2003). In *Chancellor's Cabinet operational plan for 2003-2004*. (pp. 196-205). Catonsville, MD: Community College of Baltimore County.

Limberg, L. (2000). Is there a relationship between information seeking and learning outcomes? In C. Bruce & P. C. Candy (Eds.). *Information literacy around the world: Advances in programs and research* (pp. 193-207). New South Wales: Centre for Information Studies.

Madison Area Technical College. (2003, June 3). *Faculty & staff recruitment and development*. Retrieved Feb, 12, 2004, from <http://matcmadison.edu/op/vangaurd/CriticalQuestions/faculty.htm>.

Manuel, K., Molloy, M., & Beck, S. (2003, April 10-13). *What faculty want: A study of attitudes influencing faculty collaboration in library instruction*. Paper presented at the ACRL eleventh National Conference. Retrieved October 30, 2003, from http://www.ala.org/Content/NavigationMenu/ACRL/Events_and_Conferences/manuel.pdf.

McCandless, P.A. (1999). Service oriented personnel. In D. S. Montanelli & P. F. Stenstrom (Eds.). (1999). *People come first: User-centered academic library service*. Chicago, IL: Association of College and Research Libraries.

McClenney, K. M. (2003a, March). Becoming a learning college: Milestones on the journey. *Learning Abstracts*, 6(3), unp. Retrieved April 2, 2003, from <http://league.org/publication/abstracts/learning/lclabs0303.htm>.

McClenney, K. M. (2003b, April). Benchmarking best practices in the learning college. *Learning Abstracts*, 6(4), unp. Retrieved May 26, 2003, from <http://league.org/publication/abstracts/learning/lclabs0304.html>.

- McClenney, K. M. (2001, March). Learning from the learning colleges: observations along the journey. *Learning Abstracts*, 4(2), unp. Retrieved July 17, 2003, from <http://league.org/publication/abstracts/learning/lclabs0103.htm>.
- Merriam, S. B. (1990). *Case study research in education: A qualitative approach*. San Francisco, CA: Josey-Bass.
- Middle States Commission on Higher Education. (2002). *Standards for accreditation*. Retrieved August 5, 2003, from <http://www.msache.org>.
- Moon, J. A. (1999). *Reflection in learning & professional development, theory & practice*. London: Kogan Page.
- National Association of State Universities and Land-Grant Colleges. (1997, April). *Returning to our roots: The student experience*. Washington, DC: Office of Public Affairs.
- National Center for Education Statistics (2002). *Academic Library survey*. Retrieved February 6, 2003, from <http://nces.ed.gov/surveys/libraries/ACInstruct.asp>.
- Newton, H. (2001). *Newton's telecom dictionary*. New York, NY: CMP Books.
- O'Banion, T. (1997a). *Creating more learning-centered community colleges*. Mission Viejo, CA: League for Innovation in the Community College and PeopleSoft, Inc.
- O'Banion, T. (2000, August/September). An inventory for learning-centered colleges. *Community College Journal*, 71(1), 14-23.
- O'Banion, T. (1999a). *Launching a learning-centered college*. Mission Viejo, CA: League for Innovation in the Community College and PeopleSoft, Inc.
- O'Banion, T. (1997b). *A learning college for the 21st century*. Phoenix, AZ: American Council on Education and The Oryx Press.
- O'Banion, T. (1999b, March). The learning college: both learner and learning centered. *Learning Abstracts*, 2(3), unp. Retrieved May 3, 2003, from <http://www.league.org/publication/abstracts/learning/lclabs9903.html>.

- O'Banion, T. (1996, August). Learning communities, learning organizations, and learning colleges. *Leadership Abstracts*, 9(8), unp. Retrieved March 10, 2003, from <http://www.league.org/publication/abstracts/leadership/labs0896.htm>.
- Our association*. (2003). Chicago, IL: American Library Association. Retrieved July 31, 2003 from http://www.ala.org/Template.cfm?Section_Our_Association.
- Owens, R. G. (2001). *Organizational behavior in education: Instructional leadership and school reform*. Boston, MA: Allyn and Bacon.
- Palomar College Library. (2004). *Library technology program description*. Retrieved Feb. 1, 2004, from <http://www.palomar.edu/Library/libtech/program.htm#130>.
- Proposal for an alternate self-study at Valencia Community College: Becoming a more learning-centered college: a systems approach to the design, implementation, and evaluation of institutional change strategies. (2000, September). Orlando, FL: Valencia Community College.
- Pulliam, J. D. & Van Patten, J. (1995). *History of education in America* (6th ed.). Englewood Cliffs, NJ: Prentice.
- Raspa, D. & Ward, D. (1999). Listening for collaboration: faculty and librarians working together. In D. Raspa & D. Ward (Eds.). *The collaborative imperative: Librarians and faculty working together in the information universe* (pp. 1-18). Chicago, IL: The American Library Association.
- Renaud, R. (1997, March). Learning to compete: competition, outsourcing, and academic libraries. *The Journal of Academic Librarianship*, 23, 85-90. Retrieved June 10, 2003 from FirstSearch database.
- Rice-Lively, M. L. & Drew, R. J. (1997, January). The role of academic librarians in the era of information technology. *The Journal of Academic Librarianship*, 23(1), 31-41. Retrieved June 1, 2003, from FirstSearch database.
- Richland College. (2001, September 12). *Richland College Vanguard: The Learning College Project*. Retrieved February 22, 2004, from <http://www.rlc.dcccd.edu/vanguard/project.htm>.
- Robles, H. J. (1999a). Building learning colleges: Preparing community college faculty and staff (Doctoral dissertation, The Fielding Institute, 1999). *Dissertation Abstracts International*, 61, 02A.

- Robles, H. J. (1999b, November). *The learning college—An oxymoron?* Paper presented at the Community College League of California Conference, Burlingame, CA.
- Rockman, I. F. (2003, October). Integrating information literacy into the learning outcomes of academic disciplines. *College & Research Libraries News*, 64(9), 612-615.
- Rohlf, R. H. (1989, April). Setting your house in order: Straightforward advice on creating user-friendly libraries. *American Libraries*, 20, 304-306.
- Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Simmonds, P. L. & Andaleeb, S. S. (2001, Spring). Usage of academic libraries: the role of service quality, resources, and user characteristics. *Library Trends*, 49(4), 626-634. Retrieved May 8, 2003 from FirstSearch database.
- Sinclair Community College. (n.d.). *Professional development at Sinclair Community College*. Retrieved January 18, 2004, from http://www.sinclair.edu/vlearning/pub/vanguard/staff_development/prof_dev_at_scc.pdf.
- Sinclair Community College. (2002, October). *Staff development October update*. Retrieved January 18, 2004, from http://www.sinclair.edu/vlearning/pub/vanguard/staff_development/sdic_update_update_for_october.pdf.
- Smith, K. R. (2000, December). New roles and responsibilities for the university library: Advancing student learning through outcomes assessment. *ARL*, (213), 2-5. Retrieved July 28, 2003 from FirstSearch database.
- Sonntag, G. (2001, November). Report on the national information literacy survey: Documenting progress throughout the United States [Electronic version]. *College & Research Libraries News*, 62(10), 996-1001.
- Stoffle, C., Allen, B. & Fore, J. (2000, November). Predicting the future: What does academic librarianship hold in store? *College & Research Libraries News*, 61(10), 894-901.
- Strategic learning plan (2001-2004)*. (2000). Orlando, FL: Valencia Community College. Retrieved May 3, 2003, from <http://valencia.cc.fl.us/lci/vgplns.htm>.

- Stripling, B. (1995, Spring). Learning-centered libraries: Implications from research. *School Library Media Quarterly*, 23(3), 263-172.
- Stripling, B. (Ed.). (1999). *Learning and libraries in an information age: Principles and practice*. Englewood, CO: Libraries Unlimited, Inc.
- Task force on Academic Library Outcomes Assessment Report*. (1998, June 27). Washington, DC: Association of College & Research Libraries. Retrieved September 26, 2003, from http://www.ala.org/Content/NavigationMenu/ACRL/Publications/White_Papers_and_Reports/Task_Force_on_Academic_Library_Outcomes_Assessment_Report.htm.
- Todd, R. J. (2000). A theory of information literacy: In-formation and outward looking. In C. Bruce & P. C. Candy (Eds.). (2000). *Information literacy around the world: Advances in programs and research*. New South Wales: Centre for Information Studies.
- Valencia Community College. (2003, September 16). *Learning outcomes: LRC*. Retrieved October 1, 2003, from, <http://valenciacc.edu/assembly/pdf/LRC.pdf>.
- Van Slyck, A. A. (2001, Fall). The librarian and the library: Why place matters. *Libraries & Culture*, 36(4), 518-523.
- Wilson, C. D. (2002, February). The learning college journey. *Basic Education*, 46(6), 16-19. Retrieved March 6, 2003, from <http://www.c-b-e.org/be/iss0202/a0toc.htm>.
- Wingspread Group on Higher Education. (1993). *An American imperative: Higher expectations for higher education*. Racine, WI: The Johnson Foundation, Inc.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.) Thousand Oaks, CA: Sage Publications.